Chapter 4.0

ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

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4.1 Effects Found Not to be Significant as Part of the EIR Process

The analyses within this subchapter are applicable to both Wastewater Management options, unless otherwise indicated.

4.1.1 Hydrology/Water Resources

A preliminary Drainage Study and a Storm Water Management Plan (SWMP) were prepared for the Proposed Project by Stevens-Cresto Engineering, Inc. (SCE; 2008a and 2008b). These studies are summarized below (along with other applicable information), with the complete reports included as Appendices I and J of this EIR. In addition, a Manure Management and Fly/Vector Control Plan (MMFVCP) was prepared for the Proposed Project by Development Design Services & GraphicAccess, Inc. (2008d), with applicable information from this plan incorporated into the following evaluation and the complete report included as Appendix K.

Guidelines for the Determination of Significance

The Proposed Project would result in significant impacts related to hydrology/water resources if one or more of the following thresholds is exceeded:

1. The Project would substantially alter on- or off-site drainage patterns or directions.

2. The Project would place housing within a 100-year flood hazard area as mapped by the Federal Emergency Management Agency (FEMA); place structures within a 100-year flood hazard area that would impede or redirect flood flows; expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding related to the failure of a levee or dam; or conflict with the Floodways and Floodplain Fringe section (Article IV, Section 3) of the County RPO.

3. Project implementation would substantially increase on- or off-site surface runoff volumes or velocities.

4. The Project would cause or contribute to the surpassing of existing or planned stormwater drainage system capacity.

5. The Project would potentially degrade the water quality of any water course or water body, as listed on the CWA Section 303(d) list and the Project would contribute additional pollutants for which the receiving water body is already impaired.

6. The Project would not conform to applicable federal, State, or local water quality statutes or regulations, including but not limited to, the federal Clean Water Act (CWA) and National Pollutant Discharge Elimination System (NPDES), California Porter-Cologne Water Quality Control Act, and the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance.

Guideline Sources

The identified significance thresholds are based on criteria provided in Appendix G of the State CEQA Guidelines, as well as the County, federal, and State regulations described above. These thresholds are intended to ensure conformance with existing regulatory standards, as well as to protect public health and safety and private property from hydrology and water quality related impacts.

Analysis of Project Effects and Determination of Significant Impacts

An NOP and Environmental Analysis Form (EAF) were prepared for the Proposed Project by the County (Appendix A). This analysis identified potentially significant impacts related to the issues of: (1) drainage alteration and the rate and amount of runoff, including flood-related hazards; (2) increased demand on the local imported water system; and (3) surface water quality. The issue of demand on the local imported water system is addressed in Section 4.1.5, Utilities/Service Systems, with the remaining issues discussed below.

Drainage Alteration and Runoff

Existing drainage within the main Project site is variable in direction, with overall drainage patterns moving off site to the north and south. Approximately 56 percent of the site (including the eastern half and areas along the northern boundary) drains to the north through Clevenger Canyon, with this flow entering Santa Ysabel Creek approximately one mile north of the site. This "northern watershed" area incorporates nine distinct drainage basins, with the majority of associated flows originating within the Project site (refer to Appendix I). The remaining 44 percent of the site drains approximately one mile south to Santa Maria Creek through several small, unnamed tributaries and as sheet flow. The southern watershed area is comprised of a single drainage basin, with associated flows derived from both on- and off-site sources. The proposed off-site water line improvements and road widening areas on Montecito Way drain south to Santa Maria Creek, while the off-site road improvements and water line on Ash Street drain north to Santa Ysabel Creek.

Implementation of the Proposed Project would not significantly alter existing on- or off-site drainage patterns, pursuant to Significance Guideline No. 1, with post-development watershed areas and flow directions substantially unchanged from those described above (refer to the Existing and Proposed Drainage Basin Maps in Appendix I). Project development would increase the area of impervious surface and associated runoff both on and off site. Specifically, the total area of impervious surface on site after implementation of the Proposed Project would be approximately 125 acres, with such areas including structures, pavement, and other hardscape related to proposed residential, street, park, and future charter high school development (Appendix I). Existing developed impervious surfaces within the site are limited to approximately 0.1 acre associated with the existing ranch buildings, although existing rock outcrops are essentially impervious and other development features such as unpaved roads exhibit reduced infiltration rates due to compaction. Peak 100-year storm runoff in the southern watershed area would increase from the existing rate of 711.6 cubic feet per second (cfs) to 752.2 cfs after development (a net gain of 40.6 cfs). Overall runoff in the northern watershed area would increase from the existing rate of 724.5 cfs to 847.2 cfs after development (a net increase of 122.7 cfs). Of the nine subbasins in the northern watershed area, five (N100, N300, N600/700, and N800) would exhibit a net increase in peak 100-year flows after development, although the increases for Basins N300 and N800 are less than 0.5 cfs and would be **less than significant**, pursuant to Significance Guideline No. 3 (as shown on Table 4-1). Potential impacts associated with increased

flow rates and velocities in the remaining four described basins (i.e., S100, N100, and N600/700) would be avoided or reduced to **less than significant** levels through the following Proposed Project design measures, pursuant to Significance Guideline No. 3:

- Five permanent detention basins will be located in portions of drainage basins S100, N100 and N600/700 to equalize flows from these areas prior to off-site discharge. Pursuant to criteria identified in the Project Preliminary Drainage Study (Appendix I) and other applicable sources (e.g., the Project SWMP, Appendix J), the design, location, and operation/ maintenance of the noted basins would be such that post-development runoff rates from the site would be maintained at or below pre-development levels. As described in Chapter 1.0 of this EIR (Project Description, Location and Environmental Setting), all proposed detention basins would be located outside of identified dedicated open space areas.

- Riprap type energy dissipators would be placed at storm drain outfalls to reduce flow velocities prior to off-site discharge.

In addition, as described in Appendix I, proposed reductions in flows leaving the site would be limited to a maximum of 0.8 percent of current flow at any individual outlet point to avoid associated potential impacts to downstream wetland and riparian habitats.

Proposed off-site roadway improvements to Ash Street and Montecito Way would result in approximately 2.8 acres of new impervious road surface. Potential impacts related to additional runoff generation from off-site improvements are considered **less than significant**, pursuant to Significance Guideline No. 3, due to the relatively small area involved (representing approximately two percent of the proposed on-site impervious area), the nature and location of new impervious surfaces (i.e., relatively narrow widening zones along existing paved roads a), the incremental nature of associated additional runoff, and the fact that the design and construction of proposed roadway widening efforts would conform with County road standards (including any requirements for drainage facilities). In addition, the Project would replace several existing culverts under the improved roadway segments with improved culverts, thereby correcting existing drainage facility deficiencies.

Flood Hazards

Based on review of floodplain mapping prepared by the FEMA, the Project site is not located within or adjacent to any mapped 100-year floodplains (FEMA 1997). Specifically, the Project site and adjacent areas are mapped as Zone X, which is defined to include areas outside of the 500-year (and therefore 100-year) floodplain. The closest mapped FEMA 100-year floodplains to the main Project site are located along Santa Ysabel and Santa Maria creeks, approximately one mile north and south of the Montecito Ranch site, respectively. The proposed off-site roadway improvements and water lines along Ash Street and Montecito Way also would be located completely within areas mapped as Zone X (FEMA 1997). Accordingly, impacts associated with flood hazards from mapped 100-year floodplains within these roadway/utility line corridors and the Project site would be **less than significant**, pursuant to Significance Guideline No. 2.

As noted above in this section, the Project design would not substantially increase runoff rates or velocities within or from (i.e., leaving) the site, due to the relatively minor amount of proposed impervious surface and the inclusion of Project design measures to regulate flow locations, rates, and

velocities. Specifically, these measures include the use of on-site drainage facilities (storm drains, etc.) designed to accommodate a 100-year storm event (per County guidelines), installation of extended detention basins and energy dissipators at appropriate locations to maintain pre-development flow/velocity levels, and the use of vegetated swales and surface or subsurface drains to increase infiltration and control flows in sloped areas. In addition, existing substandard drainage crossings along the proposed off-site road segments would be upgraded during construction to meet applicable County standards. Based on the described conditions, impacts in relation to the following would be **less than significant**: (1) flood hazards occurring from or to the Project in areas outside of mapped floodplains; or (2) the capacity of existing or planned storm drain systems, pursuant to Significance Guideline Nos. 2 and 4.

The proposed sewer line associated with Montecito Way, Montecito Road, and Kalbaugh Street (Wastewater Management Option 1) and the proposed water lines associated with Ash Street and Montecito Way would be located underground, and would incorporate design measures such as water-tight manhole covers, adequate burial depth, compaction of backfill materials, surface repaving, and/or habitat restoration to protect against potential flood related scour effects. These measures would conform to applicable County (e.g., road design) and other (e.g., American Society for Testing and Materials [ASTM]) standards, and would reduce potential flooding/scour impacts to the described pipeline to a **less than significant** level, pursuant to Significance Guideline No. 2.

The Project site lies outside any mapped inundation areas for major dams/reservoirs within San Diego County, as identified on inundation maps prepared by owners of dams. Accordingly, **no associated impacts** would occur from implementation of the Proposed Project, pursuant to Significance Guideline No. 2.

RPO Floodways and Floodplain Fringe

The Project site is not located near a watercourse plotted on any official County floodway or floodplain map, nor is it near any floodway or floodplain fringe area as defined by the RPO (REC 2008a). A number of non-RPO 100-year inundation areas have been mapped within the Project site and encompass several crossings of the proposed Montecito Ranch Road alignment (Figure 4-1). The proposed roadway would accommodate these crossings through the use of appropriately designed culverts installed at grade within associated drainages. Specifically, as noted above, these culverts (and all proposed drainage facilities) would be sized to accommodate 100-year flows, and would encompass wing-type headwalls at upstream inlets and energy dissipators at the downstream ends. This proposed design would allow for **less than significant** impacts to the roadway facilities (i.e., flooding) and the inundation areas themselves (i.e., through lateral or vertical modifications of the mapped inundation areas; SCE 2005) associated with the conveyance of 100-year flows, pursuant to Significance Guideline No. 2.

The Montecito Road Bridge crosses a floodplain associated with Santa Maria Creek. The Resource Protection Study for the Project (REC 2008a) concludes that this Circulation Element roadway is an allowable use under the RPO, and therefore, no impacts to floodways are anticipated with respect to the RPO. Based on this conclusion, **no impacts** are assessed in relation to compliance with the Floodways and Floodplain Fringe section (Article IV, Section 3) of the RPO, pursuant to Significance Guideline No. 2.

Surface Water Quality

Potential Project-related water quality impacts are associated with both short-term construction activities and long-term residential use, as described below. As previously noted, a Project-specific SWMP has been prepared to address these issues (SCE 2008b), with this plan including detailed design, operation, and maintenance discussions for long-term water quality concerns, as well as preliminary discussion of short-term (construction) water quality issues. Applicable information from this study (and other pertinent sources) is summarized in the following analysis, with the complete report included in Appendix J of this EIR.

Short-term Construction Impacts. Potential water quality impacts related to Project construction include erosion and sedimentation, the on-site use and storage of construction-related hazardous materials (e.g., fuels, etc.), and disposal of extracted groundwater (if required).

Erosion and Sedimentation - Proposed Project grading, excavation, and construction activities would increase the potential for erosion and transport of material both within and downstream of the site. Downstream water quality and associated wildlife habitat potentially could be impacted by erosion and sedimentation, through effects such as increased turbidity and the introduction of additional contaminants (i.e., through adsorption of contaminants onto particulate surfaces). As described below in Section 4.1.2, Geology/Soils and Minerals, the Project incorporates a number of BMPs related to erosion and sedimentation as design features. These BMPs are derived from the referenced SWMP and other applicable sources, and would avoid or reduce identified erosion and sedimentation (and related water quality) impacts to **less than significant** levels, pursuant to Significance Guideline Nos. 5 and 6.

Construction-related Hazardous Materials - Proposed Project construction would involve the on-site use and/or storage of hazardous materials such as fuels, lubricants, solvents, concrete, paint, and portable septic system wastes. The accidental discharge of such materials during Project construction could result in significant impacts to surface water quality if such materials reach downstream receiving waters, particularly materials such as petroleum compounds, which are potentially toxic to aquatic species in low concentrations.

As noted above, a SWMP has been prepared for the Project, with this report including a preliminary list of BMPs to address (among other issues) construction-related hazardous materials. General BMP categories for construction-related hazardous materials identified in the Project SWMP include vehicle and equipment maintenance, material delivery and storage, spill prevention and containment, solid and concrete waste management, and paving/grinding operations. No site-specific BMPs for construction activities are identified in the SWMP, with such detailed measures to be provided in a Project-specific Storm Water Pollution Prevention Plan (SWPPP) prepared prior to Project construction (pursuant to applicable NPDES and County requirements, as outlined below). Specifically, Project construction (including preparation and implementation of the Project SWPPP) would be subject to appropriate regulatory requirements for the issue of construction-related hazardous materials, including applicable elements of the NPDES *General Permit for Storm Water Discharges Associated with Construction Activity* (General Construction Permit, NPDES No. CAS000002, as amended), the County of San Diego *Watershed Protection, Stormwater Management and Discharge Control Ordinance* (Ordinance Nos. 9424 and 9426), and the associated County Stormwater Standards Manual. Conformance with the NPDES General Construction Permit is required for applicable sites

exceeding one acre, and is issued by the SWRCB under an agreement with the EPA, pursuant to Water Quality Order 99-08-DWQ. Specific conformance requirements include implementing a SWPPP and an associated monitoring program, as well as a Storm Water Sampling and Analysis Strategy (SWSAS) for applicable projects (i.e., those discharging directly into waters impaired due to sedimentation, or involving potential discharge of non-visible contaminants that may exceed water quality objectives). The County Storm Water Ordinance/Storm Water Standards Manual also requires construction-related BMPs to address water quality issues, and the County may, at its discretion, require the submittal and approval of a SWPPP (i.e., in addition to the NPDES SWPPP described above) to address construction-related storm water issues prior to site development.

As noted above, a Project-specific SWPPP would be prepared by the Project Applicant and incorporated into the proposed design prior to Project construction. The SWPPP would identify detailed measures to prevent and control the off-site discharge of contaminants in storm water runoff. Specific pollution control measures typically involve the use of best available technology economically achievable (BAT) and/or best conventional pollutant control technology (BCT) levels of treatment, with these requirements implemented through BMPs. While Project-specific measures vary somewhat with individual site conditions, detailed guidance for construction-related BMPs is provided in the NPDES construction permit text and referenced County standards, as well as additional standard industry sources including the *Caltrans Storm Water Quality Handbooks* (Caltrans 2003), *EPA Nationwide BMP Menu* (EPA 2003), *Storm Water Best Management Practices Handbooks* (California Stormwater Quality Association 2003), and *Best Management Practices for Erosion and Sediment Control & Stormwater Retention/Detention* (San Diego County Association of Resource Conservation Districts 1998). Based on these sources, preliminary assessment in the Project SWMP and specific elements of the Project site and proposed development, a summary of BMPs likely applicable to the use of construction-related hazardous materials for the Proposed Project is provided below. Implementation of the following measures (and/or other measures as determined appropriate in the Project SWPPP) as part of the Proposed Project design would avoid or reduce potential impacts from the use and storage of construction-related hazardous materials to **less than significant** levels, pursuant to Significance Guideline Nos. 5 and 6:

- Covered and/or enclosed storage facilities with impermeable liners and barriers (e.g., berms) would be used for all potential construction related pollutants other than sediment.
- Petroleum products including oils, fuels, diesel oil, kerosene, lubricants, solvents, and asphalt paving would be stored in weather resistant sheds where possible, with storage areas lined with a double layer of plastic sheeting and equipped with impervious perimeter barriers providing 110 percent containment capacity for stored materials. Stored petroleum products would be clearly labeled, with tanks kept off the ground surface and all storage facilities regularly monitored for leaks and repaired as necessary.
- All construction vehicle and equipment fueling and maintenance activities would be confined to designated areas with impermeable liners and containment structures, and would employ applicable measures to minimize spills such as automatic shut-off nozzles and vapor recovery equipment.
- Waste materials stored on site would be confined to a specified area of appropriate size that is lined with a buried, non-permeable geomembrane and bermed to prevent surface runon or runoff. Hazardous waste materials including paints, thinners, solvents, acrylic/polyurethane lacquers, primers, soil sterilants, metals, and other hazardous compounds will be prohibited

from on-site storage except when properly contained (i.e., in an approved receptacle), labeled and stored (i.e., in an authorized and covered site). Stored wastes regularly would be removed and disposed of in an approved off-site location.

- Spill response materials would be kept in a convenient location on site to facilitate timely response and cleanup. Specific materials and methods would include clean dry rags for small spills; containment and use of dry absorbents for medium spills; and containment, use of dry absorbents, temporary plugging of drain inlets and agency notification for large spills. Regulatory agency telephone numbers and a summary guide of clean-up procedures (as identified in the SWPPP) would be posted in a conspicuous location at or near the job site trailer.
- Paving operations would be restricted during inclement weather and would include the use of sediment controls similar to those described below in Section 4.1.2, Geology/Soils and Minerals. Washouts of paving vehicles and equipment would be limited to designated and properly designed areas, and all paving wastes would be properly contained and disposed of (as noted above).
- Construction related trash and septic wastes would be contained in approved locations/facilities, with regular off-site disposal at approved locations.
- Chemical fertilizers, pesticides, and herbicides used in temporary landscaping would be avoided if feasible and minimized in all cases, and would strictly adhere to manufacturer's specifications for use and storage.
- All BMPs will be regularly monitored and properly maintained to ensure proper working order, and non-visible pollutant monitoring/testing would be implemented as described in SWRCB Resolution 2001-046 (Order 99-8-DWQ) and the Project SWPPP. Specifically, such monitoring/testing would include scheduled monitoring to observe and document potential spills, collection and field/laboratory testing of water samples in appropriate locations, and preparation and submittal (to the County) of monitoring/testing reports.
- Technical and regulatory training would be provided to all appropriate construction employees to ensure understanding of proper hazardous material use and storage; spill risks and responses; and monitoring/maintenance efforts.

Disposal of Extracted Groundwater - Water for the Proposed Project would be supplied by the RMWD (which primarily utilizes surface reservoirs and imported sources), with groundwater not proposed to be used for any purpose including irrigation and domestic supply. The assessment of related impacts was therefore determined to be "not applicable" in the referenced February 28, 2002 NOP/EAF. This conclusion was qualified to note that if groundwater were subsequently proposed to be utilized, such use would be subject to County Ordinance No. 7994 (Title 7, Chapter 7 of the San Diego County Code).

The referenced NOP/EAF also concluded that the Proposed Project would result in **less than significant** impacts to groundwater quality, based on the fact that proposed activities would not involve potential sources of chemicals or compounds that could decrease the quality of groundwater below standards set by the RWQCB. This conclusion was qualified, however, by noting that the owner and/or facility operator would be required to investigate coverage requirements under the RWQCB Dewatering Waste Discharge Permit (NPDES No. CA0108707) prior to site development.

The necessity for extraction and disposal of groundwater during construction activities (e.g., to facilitate excavation) cannot be determined with certainty at this time, although the potential exists for encountering shallow groundwater (refer to Appendix L). If extraction and disposal is required during Project construction, such activities potentially could generate significant short-term impacts to surface water quality through erosion and sedimentation (e.g., if discharged onto graded or unstable areas), as well as from the possible occurrence of contaminants in local groundwater aquifers. Under such conditions, the disposal of extracted groundwater could impact downstream surface water quality and associated biological habitats through increased turbidity and/or the introduction of other contaminants.

The Project Applicant (or construction contractor) would be required to conform to the NPDES General Groundwater Extraction Waste Discharges Permit (Dewatering Permit, NPDES CAG919002) prior to disposal of extracted groundwater. This permit is administered by the RWQCB through Order No, 2001-96, with conformance required for all dewatering activities that would either dispose of greater than 100,000 gallons per day of extracted groundwater, or dispose of groundwater that would exceed local Basin Plan water quality objectives. While specific measures to ensure conformance can vary with site-specific conditions, such efforts typically involve a number of standard BMPs to protect downstream water quality. The previously referenced standard industry BMP sources identify the following types of measures for disposal of extracted groundwater: use of sediment catchment devices (similar to those described in Section 4.1.2 for erosion and sedimentation), testing of extracted groundwater for contaminants prior to discharge, and treatment of groundwater prior to discharge (if required) through measures such as filtering (e.g., with gravel and filter fabric media) or conveyance to a municipal wastewater treatment plant. Implementing measures required for conformance with the NPDES Dewatering Permit would effectively avoid or reduce potential water quality impacts associated with disposal of extracted groundwater to a **less than significant** level, pursuant to Significance Guideline Nos. 5 and 6.

Long-term Impacts. Potential long-term water quality impacts associated with use of the site as a residential community include the generation and off-site discharge of urban contaminants, as well as contaminants from proposed equestrian uses. The generation of such contaminants from residential and equestrian sites typically includes: sediment; floatables (e.g., trash and debris); nutrients; metals; petroleum compounds; pathogens (bacteria and viruses); organic compounds; oxygen demanding substances; and/or toxic materials (e.g., chemical pesticides, herbicides, and fertilizers). The described contaminants accumulate primarily in streets, parking lots, and drainage facilities, and are picked up in runoff during storm events. Contaminant loading is notably higher during initial runoff generation (i.e., the "first flush"), and in arid climates (such as southern California) contaminant loading is higher during the first storm event of the rainy season due to accumulation of contaminants during the dry season. Post-development peak 100-year storm runoff within and from the site is projected to increase locally (refer to Table 4-1), with a corresponding increase in runoff loading potential. The potential for transport of urban- and equestrian-related contaminants from the Project site to downstream receiving waters, resulting in significant water quality impacts related to increased turbidity, oxygen depletion, and toxicity to attendant species, has been addressed through the preparation of the previously described SWMP and MMFVCP. Specifically, applicable BMPs from these documents have been incorporated as Project design measures, with summary descriptions provided below and additional detail included in Appendices J and K.

Urban Contaminant BMPs. As discussed above under "Surface Water Quality," the implementation of an approved SWMP is required under the County of San Diego Watershed Protection, Storm Water

Management and Discharge Control Ordinance (Ordinance Nos. 9424 and 9426). This ordinance was adopted in response to requirements under the NPDES Municipal Stormwater Permit (NPDES No. CAS0108758), which is implemented by the RWQCB under Order No. 2001-01. This order identifies waste discharge requirements for urban runoff related to applicable new development, redevelopment, and existing development sites under the jurisdiction of co-permittees (e.g., the County of San Diego). The intent of these requirements is to protect environmentally sensitive areas and provide conformance with applicable water quality standards, including the federal CWA and the RWQCB Basin Plan beneficial uses and water quality objectives. Specific requirements include: (1) use of volume- or flow-based structural BMPs to mitigate (i.e., infiltrate, filter or treat) runoff from a design storm event or intensity; and (2) reduction of post-development runoff containing pollutant loads which cause or contribute to an exceedance of receiving water quality objectives to the maximum extent practicable (MEP). Detailed discussions of applicable regulatory elements (including Basin Plan beneficial uses/water quality objectives and federal Clean Water Act Section 303(d) requirements), site hydrologic conditions, historical and potential on-site contaminants, and proposed BMPs and monitoring/maintenance efforts are provided in the Project SWMP (Appendix J). A summarized list of applicable site design, source control and treatment control BMPs and related monitoring/maintenance efforts identified in the Project SWMP is provided below, with these measures applicable to proposed on- and off-site facilities/activities. Implementation of an approved SWMP as part of the Project design would avoid or reduce potential long-term water quality impacts to **less than significant** levels, pursuant to Significance Guideline Nos. 5 and 6.

Site Design BMPs - Site design BMPs are intended to achieve storm water and associated pollutant control by mimicking the natural hydrologic regime (including hydrologic characteristics and contaminant generation) to the MEP. Specific site design BMPs identified for the proposed development in the Project SWMP include the following:

- The site would be designed to minimize the construction of impervious surfaces by limiting road widths and sidewalks, preserving native vegetation wherever feasible, incorporating landscaping as soon as feasible (to reduce erosion potential), and using vegetated areas for storm water filtering (as described below).
- Site design would consolidate grading and building areas at the extreme front end of each lot (adjacent to the public street), to preserve the majority of the lots as undisturbed open space (via open space easement) and facilitate infiltration and natural runoff filtering.
- The Project design incorporates measures to avoid or minimize development (and associated impacts) in critical areas such as receiving waters, floodplains, steep slopes, wetlands, and erosive or unstable soils.
- Runoff from developed areas would be directed into adjacent landscaping on individual lots (e.g., lawns) and/or biofiltration swales wherever feasible.
- Potential erosion and sedimentation impacts on slopes would be minimized wherever feasible through measures such as avoiding disturbance to existing slopes, minimizing manufactured slopes lengths, using retaining walls to reduce manufactured slope steepness or height, using contour grading techniques to reduce concentrated flows, and directing flows into stabilized drainage structures.
- Detention basins would be used on site to regulate post-development flows and maintain or reduce such flows relative to pre-development levels.

- Riprap type energy dissipators would be installed at all storm drain outlets to reduce runoff velocities and associated erosion potential.

Source Control BMPs - Source control BMPs are intended to avoid or minimize the introduction of contaminants into the storm drain and natural drainage systems by reducing the potential generation of contaminants at the point of origin to the MEP. Source control BMPs identified for the proposed development in the Project SWMP include the following:

- An educational program would be implemented to provide homeowners with pertinent information on local water quality concerns and issues through source control measures such as distribution of informational brochures. Specific brochure topics would include: (1) storm water runoff pollution fact sheet; (2) storm water runoff pollution prevention tips for homeowners; (3) storm water runoff pollution prevention for yard work (landscaping, gardening and pest control); (4) storm water runoff pollution prevention for pet waste; and (5) storm water BMPs for swimming pool and spa cleaning.
- Landscape irrigation systems would be designed and monitored to minimize associated runoff (e.g., by use of moisture/pressure sensors and automatic shutoff devices to preclude irrigation during precipitation or in the event of broken sprinkler heads or lines).
- Storm drain stencils and/or signs that meet current County criteria would be provided at pertinent locations, such as all Project storm drain inlets (including off-site roadway improvements) and public access points along drainages, to discourage illicit discharges.
- Covered receptacles, impervious surfaces, and enclosures would be used for trash storage areas to prevent off-site transport and contact with precipitation or runoff.
- Landscaping within parking areas would be incorporated into the drainage system.

Treatment Control BMPs - Treatment control BMPs are intended to mitigate (infiltrate, filter, or treat) runoff from developed areas, and are required to incorporate (at a minimum) either volume- or flow-based treatment control design standards (as described in the NPDES Municipal Permit and related County requirements). All treatment control BMPs will be designed to accommodate flow or volume associated with a design storm event, pursuant to applicable NPDES and County standards. Treatment control BMPs identified in the Project SWMP are summarized below, with a location map and detailed descriptions of all treatment control BMPs provided as Attachments D and E of Appendix J, respectively:

- The site design includes five detention basins (including one public and four private basins), as described in Chapter 1.0 of this EIR (Project Description, Location and Environmental Setting) and the Project SWMP (Appendix J). While these basins are intended to regulate runoff discharge (as described above under Drainage Alteration and Runoff) and would not be designed as water quality treatment structures, the associated impoundment of runoff would create quiescent conditions and remove contaminants such as sediment, particulates and other contaminants (e.g., metals or hydrocarbons that may be adsorbed onto particulates) through settling. In addition, detention basins would be equipped with "water quality outlets," which consist of filtering devices such as debris screens, rock piles or rock-filled gabions.
- The site design includes a number of ClearWater™ curb inlet filtration units to treat runoff from public and private rights-of-way, including the off-site portion of Montecito Way. These units include three separate screens to filter out larger trash and debris, three chambers to

settle out suspended solids, a suspended adsorbent boom in the first chamber to remove hydrocarbons, and a media filter at the end of the treatment train to remove smaller particulates and dissolved metals. Removal efficiencies for ClearWater™ units include 97 percent for total suspended solids (TSS), 86 percent for oil and grease, 81 percent for lead, and 83 percent for zinc (Appendix J).

- Several Vortechnics VortSentry™ hydrodynamic separators would be used to treat runoff from private roadways within the Project site. These units employ a swirling motion to enhance gravitational separation of contaminants, which are trapped in the storage sump and subsequently removed. Removal efficiencies for VortSentry™ units include 80 percent of TSS with an average particle size of 110 microns.

- A series of BIO CLEAN curb inlet inserts would be located within curb inlets along private roads where storm drain systems are not tributary to hydrodynamic separators, as described above. These units include multiple screens to remove coarse to fine size particulates, as well as a bio-sorb boom that provides medium to high removal efficiency for heavy metals.

- A number of bio-filters (i.e., vegetation-lined swales) would be used as a final treatment for runoff from residential and related development areas within the Project site (i.e., after flows have been treated by other described treatment control BMPs). Bio-filters generally consist of open, shallow channels with vegetated sides slopes and bottoms that filter slow-moving runoff as it passes through. Specific contaminants targeted by bio-filters include sediment, metals, oil and grease, organic material, and oxygen demanding substances.

- Long-term Project operation would include regular monitoring and maintenance of the detention basins, curb inlet filtration units, hydrodynamic separators, curb inlet inserts, and bio-filters to ensure proper working order and conformance with applicable regulatory requirements. Specific measures for detention basins would include the following (refer to Appendix J for additional detail): (1) inspections to be conducted once a month during normal conditions, weekly during extended periods of wet weather and after every large storm event; (2) regular sediment removal from the detention basins and related facilities (e.g., inlet structures) to conform with quantified operational specifications (see Appendix J); (3) maintenance of vegetation at specified heights and regular removal of trash and debris; (4) regular inspection and as-needed maintenance of mechanical and electronic components (e.g., gates and valves) per manufacturer's specifications; (5) as-needed corrective maintenance for all basin components and related facilities (e.g., fence or slope repairs); (6) elimination of mosquito breeding habitat (i.e., standing water), excluding the treated water storage ponds under Wastewater Management Option 2 (refer to Section 4.1.4, Hazards and Hazardous Materials, for discussion of mosquito control for the storage ponds); (7) regular aesthetic maintenance for vegetated areas (e.g., mowing and trimming) and structures (e.g., graffiti removal); and (8) removal of animal burrows and (if necessary) animals.

  Identified monitoring and maintenance measures for curb inlet filtration units include (see also Appendix J): (1) inspections to be conducted after every rainfall event for the first 90 days, once every 60 days during the rainy season, and at the end of the rainy season; (2) periodic (at least twice per year) removal of accumulated materials with a vacuum truck; (3) regular replacement of adsorbent boom and media filter per manufacturer's specifications; and (4) repair/replacement of damaged/defective components on an as-needed basis.

Identified monitoring and maintenance measures for hydrodynamic separators include (see also Appendix J): (1) inspections to be conducted quarterly throughout the year and weekly during extended periods of wet weather; (2) removal of accumulated materials quarterly, after each large storm event, or (for sediment) when accumulation reaches a depth of approximately three feet; and (3) completion of regularly scheduled maintenance per manufacturer's specifications.

Identified monitoring and maintenance measures for curb inlet inserts include (see also Appendix J): (1) inspections to be conducted quarterly under normal conditions and weekly during extended periods of wet weather; (2) periodic removal of accumulated materials; (3) replacement of filter "storm booms" as necessary per manufacturer's specifications; and (4) repair of mechanical components on an as-needed basis.

While intensive maintenance is generally not anticipated for bio-filters, inspections would be conducted annually, after each storm event with more than 0.5 inch of precipitation, and weekly during extended periods of wet weather. Based on the results of such monitoring, the following measures may apply (see also Appendix J): (1) control of vegetation (e.g., mowing) to ensure adequate hydraulic function; (2) periodic removal of sediment, trash, debris, excess or dead vegetation and standing water; (3) erosion/slope repairs; and (4) removal of vector habitat, animal burrows, and (if necessary) animals.

Equestrian BMPs. The following BMPs are identified for equestrian-related water quality concerns related in the MMFVCP (Development Design Services and GraphicAccess, Inc. 2008d).

The equestrian staging area manager shall ensure that the following measures are implemented at the equestrian areas:

- The equestrian arena and temporary holding pens shall be cleaned weekly, with immediate disposal of waste materials to a covered, roll-off commercial dumpster.
- Outside temporary holding pens shall contain decomposed granite that is layered over a thick asphalt felt.
- All wastes shall be disposed of directly to a commercial dumpster, with no on-site composting proposed.
- Dumpsters shall be emptied once a week, with waste materials taken to an approved landfill (or associated recycling area).
- Prior to the rainy season, (September through March), cleaning efforts shall be implemented to remove any excess accumulations of manure from the premises.
- Non-leak valves shall be used for all water devices.
- The equestrian facility shall provide a water spout for individual horse owners to use with their own buckets, with no individual horse waterers or large troughs proposed.
- Feed troughs and bins shall not be provided.
- Grading shall be conducted such that proper drainage is provided in pens, arenas and corrals.

- Facility users shall be requested to report all water leaks to prevent unnecessary saturation in areas where manure may be present.
- All watering devices shall be regularly inspected by maintenance personnel to ensure proper working conditions.
- A general clean up program shall be implemented to supplement manure management efforts at the equestrian facilities, including measures such as promptly removing damp or spilled feed, properly storing all waste products prior to off-site disposal, and precluding on-site feed and supplement storage.
- Manure storage bins shall be placed onto impervious surfaces with appropriate berming.
- Pesticide use shall be limited to insecticides (Py-Tech or equivalent) to reduce fly and mosquito breeding, and shall be applied by a licensed professional.

Implementation of the described BMPs and other measures identified in the referenced MMFVCP would avoid or reduce potential water quality impacts from the proposed equestrian facilities to **less than significant** levels (pursuant to identified Significance Guideline Nos. 5 and 6).

Analysis of Cumulative Impacts

As discussed above, the Proposed Project would not result in any significant Project-level impacts to local drainage patterns, runoff volumes, or velocities. Specifically, existing drainage patterns within the site would not be substantially altered, with roughly 56 percent of on-site flows moving north through Clevenger Canyon and ultimately entering Santa Ysabel Creek, and 44 percent of site runoff flowing southwest to Santa Maria Creek. Post-development runoff volumes from (i.e., leaving) the site would be maintained at or below existing levels by using a system of extended detention basins, while runoff velocities would be maintained at pre-development levels through the use of controlled discharge volumes and riprap energy dissipators at outlet points. The proposed and future projects in the site vicinity noted in Tables 1-8, 1-9 and 1-10 will be required to implement, as appropriate, similar site-specific measures to address potential drainage alteration and increases in runoff volumes and velocities (e.g., through regulatory permitting as discussed below). Based on these requirements, existing regional drainage and runoff conditions would remain essentially unchanged by implementation of the described projects, and **no associated significant cumulative impacts** to local drainage patterns, runoff volumes or velocities are anticipated.

Development of the projects listed in Tables 1-8, 1-9 and 1-10 (including the Proposed Project) could potentially result in significant cumulative water quality impacts, from effects such as increased erosion/sedimentation and the downstream transport of water-borne contaminants. This conclusion is alluded to in the San Diego County General Plan Conservation Element, which identifies ongoing water quality issues related to development and recognizes the fact that no comprehensive regional water quality control program was in place at the time the General Plan was adopted. Such a program is now in place, however, in the form of the RWQCB NPDES Municipal Stormwater Permit and the related County of San Diego Watershed Protection, Storm Water Management and Discharge Control Ordinance (Ordinance Nos. 9424 and 9426). These requirements are intended to protect receiving water beneficial uses (as identified in the RWQCB Basin Plan) by implementing site-specific and watershed-based requirements to meet related water quality objectives on a regional scale.

Implementation of the Proposed Project would result in the generation of short- and long-term contaminants, and would contribute to cumulative water quality impacts in downstream waters including Santa Ysabel Creek, Santa Maria Creek, Lake Hodges, and San Dieguito River. Potential short-term water quality impacts would include construction-related hazardous materials (e.g., fuels, etc.), disposal of extracted groundwater (if required) and erosion/sedimentation from Project excavation and grading. Potential long-term water quality impacts from the Proposed Project would be associated with the generation of urban contaminants including sediment; floatables (e.g., trash and debris); nutrients; metals; petroleum compounds; pathogens (bacteria and viruses); organic compounds, oxygen demanding substances; and toxic materials (e.g., chemical pesticides, herbicides and fertilizers). Identified short- and long-term water quality impacts would be avoided or reduced below a level of significance on a project level through Project design measures, including BMPs to ensure conformance with existing regulatory permit requirements. Because these described efforts would not (and cannot) completely eliminate the generation of contaminants, the Project would incrementally contribute to cumulative water quality impacts. These cumulative impacts are considered **less than significant**, however, based on the following considerations: (1) all identified Project-level water quality impacts would be avoided or reduced below a level of significance through site-specific Project design features and conformance with existing regulatory requirements; and (2) the Project and applicable past, current and future developments within the Santa Ysabel/Santa Maria creek watersheds are subject to water quality standards identified in the noted RWQCB Municipal Stormwater Permit, with these requirements implemented through the referenced County of San Diego Watershed Protection, Storm Water Management and Discharge Control Ordinance. As outlined below, these requirements are specifically intended to limit urban runoff contaminants, conform with Basin Plan water quality objectives and beneficial uses, and address regional (i.e., cumulative) water quality impacts on a watershed-wide basis within the San Diego Basin.

As summarized above, the NPDES Municipal Stormwater Permit and related County standards identify waste discharge requirements for urban runoff related to applicable new development, redevelopment and existing development sites under the jurisdiction of co-permittees (e.g., the County of San Diego). The intent of these requirements is to protect environmentally sensitive areas and provide conformance with applicable water quality standards, including the federal Clean Water Act and the RWQCB Basin Plan beneficial uses and water quality objectives. To this end, the Municipal Permit requires co-permittees to fund and implement urban runoff management plans (URMPs) that would reduce runoff and contaminant discharges to the MEP, with the goal of "[p]romoting attainment of water quality objectives necessary to support designated beneficial uses." Specific measures identified to meet these goals include (among other criteria) a number of numeric and qualitative standards related to water quality and runoff discharge. In addition to these site-specific elements, the noted regulatory requirements recognize both the regional nature of contaminant generation and the contribution of existing development to cumulative water quality effects. With respect to the first point, the Municipal Permit identifies the fact that "[u]rban runoff does not recognize political boundaries…," and that "[w]atershed-based land use planning (pursued collaboratively by neighboring local governments) can greatly enhance the protection of shared natural water resources." Specific measures identified to address these concerns include:

- Collaboration between individual co-permittees is required to establish URMPs for specific watersheds that extend across jurisdictional boundaries, and to (among other tasks) compile associated data bases (including mapping); assess receiving water quality; identify, prioritize, and monitor water quality problems; generate proposed mitigation efforts and responsibilities (including the assessment of long-term effectiveness); and document the described efforts in

annual reports to the RWQCB. The described tasks were conducted on a jurisdictional basis for the first two years, and are transitioning to a watershed-based approach for subsequent efforts. This requirement has been implemented for the Project site watershed through adoption of the San Dieguito Watershed Urban Runoff Management Plan (WURMP) in January 2003.

- Co-permittees are required to designate a principal permittee to coordinate the above described activities among the co-permittees; coordinate the preparation of a regional "Unified Jurisdictional URMP Document" (including assessment, monitoring, and reporting efforts similar to those described above); and serve as a liaison to the RWQCB. The City of San Diego has been designated as the principal permittee for the San Dieguito WURMP.

- Co-permittees are required to assess and (if applicable) modify general plan, environmental review, and development approval processes to reflect the Municipal Permit requirements, including the noted transition to a watershed-based assessment of water quality issues. This requirement has been met through the referenced County of San Diego Watershed Protection, Storm Water Management and Discharge Control Ordinance and San Dieguito WURMP.

- Co-permittees are required to implement education programs to ensure that planning, development review, and other applicable staff members, as well as project applicants (and other applicable non-regulatory personnel), adequately understand water quality laws and regulations, the connection between land use decisions/development and water quality impacts, and the methodology for reducing such impacts. This requirement has been met through the referenced County of San Diego Watershed Protection, Storm Water Management and Discharge Control Ordinance.

The Municipal Permit also identifies the contribution of existing development to cumulative water quality issues, and requires co-permittees to implement the following measures to assess and reduce cumulative impacts:

- Co-permittees are required to include and implement Existing Development components in their URMPs for existing municipal, residential, commercial, and industrial sites, to "[m]inimize the short and long-term impacts on receiving water quality from all types of existing development." Specific methods identified to achieve this requirement include efforts such as contaminant source control and implementation of retrofit BMPs. This requirement has been met through the referenced San Dieguito WURMP and County of San Diego Watershed Protection, Storm Water Management and Discharge Control Ordinance.

- Co-permittees are required to implement URMP Components to actively seek and eliminate illicit discharges and connections to municipal stormdrains, including efforts to monitor, detect, and eliminate such conditions, as well as measures to provide alternative disposal options (e.g., hazardous material collection sites/events) and enforcement capacity. This requirement also has been met through the referenced San Dieguito WURMP and County of San Diego Watershed Protection, Storm Water Management and Discharge Control Ordinance.

The above requirements also would help to reduce and maintain potential cumulative water quality impacts from "past, present, and future development" at **less than significant** levels.

Mitigation Measures

Based on the significance thresholds, required ordinance compliance, and impact discussions provided in this section, no significant direct, indirect, or cumulative hydrology/water resources impacts were identified from implementation of the Proposed Project. Accordingly, no mitigation measures are required and none is proposed.

4.1.2 Geology/Soils and Minerals

Geotechnical Investigations were prepared for the Project site and off-site facility areas by Shepardson Engineering Associates, Inc. (Shepardson; 2006, 2005, 2004a, 2004b, 2002, and 1989) and GEOCON, Inc. (GEOCON; 1991), with these studies summarized below and the complete reports included in Appendix L of this EIR. Additional background information on mapped soils within the Project site and vicinity is provided in Appendix M.

Guidelines for the Determination of Significance

The Proposed Project would result in significant impacts related to geology/soils and minerals if one or more of the following thresholds is exceeded:

1. The Project does not conform to the goals and requirements of applicable federal, State or local regulations for soil erosion, loss of topsoil or siltation, including, but not limited to, the federal CWA and NPDES; State Porter-Cologne Water Quality Act; County of San Diego Revised Grading Ordinance; or County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance.
2. The Project would expose people or structures to potential substantial adverse effects (including the risk of loss, injury, or death) related to seismic hazards, including ground rupture, ground acceleration, and liquefaction, and the Project does not conform to the Uniform Building Code (UBC).
3. The Project would expose people or structures to potential substantial adverse effects (including the risk of loss, injury, or death) related to expansive soils, and the Project does not conform to the UBC.
4. The Project would result in the direct or indirect loss of or damage to geologic features that provide specific and unique scientific value, are identified as "Unique Geological Features" in the County of San Diego General Plan Conservation Element, or are identified as unique geologic features on the Natural Resource Inventory.
5. The Project would result in the loss of availability of known mineral resources with regional or local value.

Guidelines Sources

The identified significance thresholds are based on criteria provided in Appendix G of the State CEQA Guidelines, as well as the noted federal, State, County, and UBC standards described above. These thresholds are intended to ensure conformance with existing regulatory and industry standards, as well as to protect public safety and private property from geologic and related hazards.

Analysis of Project Effects and Determination of Significant Impacts

The Project NOP and EAF identified potentially significant geologic impacts related to the issues of erosion/sedimentation, expansive soils and unique geologic features, as addressed below. The referenced geotechnical investigations identify a number of additional potentially adverse geologic conditions that may occur or be encountered during Project implementation, including the presence of surficial materials (e.g., alluvial and colluvial deposits) that may be unsuitable to support proposed development. The reports also recommend that a detailed geotechnical investigation be completed for the Project site and off-site improvement areas, and that associated findings and recommendations be incorporated into Project design and construction efforts.

Erosion/Sedimentation

Proposed on- and off-site Project grading, excavation, and construction activities would increase the potential for erosion and transport of material both within and downstream of the site. Specifically, such activities would entail the removal of stabilizing vegetation, the excavation of existing compacted (and generally dense) surface materials from cut areas, and the redeposition of these materials as fill deposits in proposed development pads, roadways and manufactured slopes at a 2:1 ratio. While proposed fill deposits would be recompacted to support Project loading and ultimately would be stabilized (e.g., through paving or landscaping), erosion potential associated with fill deposits and graded areas would be higher in the short-term than for pre-construction conditions. Developed areas would be especially susceptible to erosion between the commencement of grading and the completion of Project construction and landscaping.

As described for construction-related hazardous materials in Section 4.1.1, Hydrology/Water Resources, the Proposed Project is subject to applicable NPDES permit requirements for construction activity (NPDES No. CAS000002; SWRCB Order 99-08-DWQ) and long-term site operation (NPDES No. CAS0108758; RWQCB Order No. 2001-01). Both of these permits include requirements related to erosion/sedimentation, with preliminary evaluation of erosion/sedimentation issues provided in the Project SWMP (Appendix J). Pursuant to the above-referenced discussion in Section 4.1.1, Hydrology/Water Resources, a SWPPP would also be prepared by the Project Applicant and incorporated into the proposed design prior to Project construction. Based on preliminary assessment in the Project SWMP, and the guidelines for SWPPP preparation described in Section 4.1.1, a summary of BMPs likely applicable to the Proposed Project for the issue of erosion/sedimentation is provided below. Implementation of the following measures (and/or other BMPs as determined appropriate in the pending Project SWPPP) as part of the Proposed Project design would avoid or reduce potential impacts from construction-related erosion/sedimentation to **less than significant** levels, pursuant to Significance Guideline No. 1:

- Construction scheduling and implementation would incorporate the following efforts: (1) site grading and excavation activities would be minimized during the rainy season to the maximum extent practicable; (2) existing vegetation would be preserved wherever feasible; and (3) grading and surface disturbance would be limited to the smallest feasible areas at any given time.
- Erosion control and sediment catchment devices would be implemented in applicable portions of all disturbed areas, including (but not limited to) manufactured slopes, areas within or adjacent to drainage courses (e.g., Montecito Road Bridge crossing), and storm drain inlets. Specific proposed measures include the following: fiber rolls, silt fences, straw bale barriers,

sand- or gravelbag barriers, check dams, erosion control blankets, geotextiles, mats, bonded fiber matrix, hydroseeding, diversion dikes or channels, brow ditches, temporary sediment basins, and rip rap.

- Dust generation and sediment tracking related to Project construction would be controlled through measures such as regular watering (or use of an approved dust palliative), street sweeping/vacuuming, and stabilization of construction ingress/egress points (e.g., through temporary paving or gravelling).
- Construction-related solid wastes and material stockpiles would be properly contained (e.g., with impermeable berms and liners) and managed to preclude erosion and sedimentation.
- Permanent landscaping would be installed in designated areas as soon as feasible after completion of grading and construction activities. Irrigation would be avoided and minimized to the extent practicable, and managed to avoid runoff and surface saturation.
- Temporary slope down-drains and/or permanent sub-drains would be installed in applicable areas to minimize surface runoff and saturation.
- The educational BMP component described above in Section 4.1.1, Hydrology/Water Resources, would include information related to long-term erosion and sediment control, such as tips on maximizing landscape cover and mechanical removal of sediment from hardscape areas.

In addition to the short-term measures described above, a number of long-term treatment control BMPs, including extended detention basins, bio-filters, drainage/filtration inserts and hydrodynamic separators, would be installed in applicable locations as part of the Proposed Project design (refer to Section 4.1.1, Hydrology/Water Resources). The operation and regular maintenance of these facilities would contribute to the control of long-term erosion and sedimentation both within and downstream of the site. Applicable drainage outlet locations associated with the Project also would be equipped with energy dissipation devices, such as riprap aprons, to reduce flow velocities and downstream erosion potential.

Expansive Soils and Other Unsuitable Surficial Deposits

As noted above, the NOP and EAF conducted for the Proposed Project identified potentially significant impacts related to expansive soils within the site, based on soil mapping contained in the San Diego Area Soil Survey (U.S. Department of Agriculture 1973). Specifically, a number of soil types mapped within the Project site in the referenced survey exhibit moderate or high expansion (or shrink-swell) potential due to the presence of clay minerals. Seven geotechnical investigations conducted for the Project site and off-site facilities are included in Appendix L of this EIR. Expansive soils were not documented on or off site or identified as a significant hazard in any of these investigations, although one investigation (GEOCON 1991) noted that weathered material derived from gabbroic rocks near the north-central site boundary potentially could exhibit expansive characteristics. Geotechnical studies conducted by Shepardson for proposed off-site facilities (2006, 2005, and 2004a) and the Project site (2004b and 2002) note that a detailed geotechnical investigation (including sampling and laboratory analysis) would be conducted based on the approved Project grading plans, and that standard remedial measures would be implemented as part of the Proposed Project design if expansive soils are encountered. Specific measures identified to address these potential concerns include burial of expansive soils beneath deep fills, mixing of expansive soils

with non-expansive material, and testing/monitoring to ensure that expansive soils are not located within approximately three feet of residential pad finish grades. In addition, the Proposed Project design would include standard geotechnical measures to ensure proper composition, application methodology, compaction and moisture content for Project fills (per ASTM and County Certification of Fill Compaction Report requirements). Such efforts would ensure conformance with County Grading Ordinance requirements related to (among other issues) expansive soils, and would avoid or reduce associated potential impacts to **less than significant** levels, pursuant to Significance Guideline No. 3.

In addition to expansive soils, the Project geotechnical investigations identified surficial materials in portions of the Project site and off-site facility areas that may be unsuitable for proposed development. Specifically, these include alluvial and/or colluvial deposits that may be subject to settlement or differential settlement (i.e., varying degrees of settlement over short distances) under load. Such deposits are present within portions of the Project site and off-site facility areas, including the eastern end of the proposed water tank access road (Shepardson 2006; Appendix L). While these deposits (along with other applicable concerns) would be evaluated during detailed geotechnical investigation, they would likely be subject to standard industry measures such as removal and recompaction or replacement with engineered fill. The implementation of such measures (or other specific recommendations in the detailed geotechnical investigation) would avoid or reduce associated potential impacts to **less than significant** levels.

Unique Geologic Features

As described in the referenced Project NOP and EAF, the Project site contains a number of prominent rock outcrops, particularly in association with steeper topography. While the majority of these features would be preserved within dedicated open space, some outcrops would be impacted as a result of Project implementation. Geologic exposures in the Project site consist primarily of Cretaceous granitic intrusive bedrock associated with the Southern California Batholith. This batholith extends over a broad geographic area, and encompasses rocks from a number of distinct intrusive events that extended over an extensive time period. Within the Project site, these rocks include exposures of the Green Valley Tonalite (or quartz-diorite) in the northern and eastern portions of the Project site, with this unit characterized by extensive fracture/joint patterns and rounded bouldery outcrops. The south-central and western portions of the site contain large exposures of the Woodson Mountain Granodiorite, with these rocks typically less fractured and weathered than the Green Valley Tonalite and exposed as resistant boulders and "knobby" outcrops. Additional geologic units within the site include a relatively large exposure of the Cretaceous San Marcos Gabbro near the north-central site boundary, and minor occurrences of the Jurassic Bedford Canyon Formation in the central portion of the Project site. The San Marcos Gabbro is also an igneous intrusive body of the Southern California Batholith, but is considered to be older than the Green Valley Tonalite and Woodson Mountain Granodiorite. The on-site gabbro consists of dark-colored basic rocks, with localized exposures of nearly black pyroxenite (i.e., ultrabasic rocks composed of ferromagnesian minerals such as olivine and biotite mica). Rocks of the Bedford Canyon Formation consist of metasedimentary rocks occurring as roof pendants and inclusions in the surrounding igneous intrusives. Specifically, these rocks were present before, and intruded by, the Southern California Batholith, with exposures on site (as well as numerous other locations in central and eastern San Diego County) consisting of remnant deposits not completely lost or consumed by the intrusion of molten material.

Pursuant to criteria identified in the County of San Diego General Plan Conservation Element, the assessment of potential impacts to unique geologic features should include evaluation of associated scientific and aesthetic value. Discussion of potential impacts related to the aesthetic value of geologic resources (i.e., rock outcrops) is located in Subchapter 3.5, Aesthetics, and Appendix H of this EIR, with potential impacts related to the scientific value of unique geologic resources provided below.

Based on the above discussion, impacts related to the scientific value of unique geologic resources from implementation of the Proposed Project would be **less than significant**, pursuant to Significance Guideline No. 4. This conclusion is based on the following considerations: (1) the majority of rock outcrops on site would be preserved within permanent open space areas; (2) no geologic features within the Project site or applicable off-site areas (including rock outcrops) are included on the list of "Unique Geological Features" provided as Appendix G of the County General Plan Conservation Element, or on the Natural Resource Inventory (Shepardson 2005 and 2004b); (3) on- and off-site geologic exposures of the Green Valley Tonalite, Woodson Mountain Granodiorite, and Bedford Canyon Formation that would be impacted by the Project are not distinguishable, in terms of geologic features and scientific value, from extensive similar exposures of these units in both on-site preserves and off-site areas; (4) exposures of the Green Valley, Woodson Mountain, and Bedford Canyon units within the proposed development area do not meet the applicable criteria for unique geologic features (i.e., those based on scientific value) identified in the County General Plan Conservation Element (pg. X-66), which require such features to "[i]llustrate a geologic principal,…provide a key piece of geologic information…"or be "…a 'type locality' of a fossil or formation…"; and (5) exposures of the San Marcos Gabbro which could potentially qualify as a unique geologic feature (based on the lithologic description provided above) would be preserved within the described permanent open space area.

Seismic Hazards and Minerals

Based on geotechnical analyses conducted for the on-site portion of the Project area by Shepardson (2004b, 2002, 1989), GEOCON, Inc. (1991), and a site visit conducted by County staff on May 11, 2001, as well as geotechnical analyses conducted for the off-site roadway improvement areas by Shepardson (2006, 2005, and 2004a), potential Project-related impacts associated with seismic hazards and mineral resources were determined to be **less than significant**, pursuant to Significance Guideline Nos. 2 and 5 (Appendix L). Specifically, these investigations resulted in the following observations: (1) no active or potentially active faults are known or expected to occur within the site or vicinity, and no Fault-Rupture Hazard Zones are mapped within or adjacent to the site (California Division of Mines and Geology [CDMG] 1999); (2) the maximum probable on-site seismic ground acceleration (i.e., ground shaking) value is 0.15g (where g equals the acceleration due to gravity) in association with a 6.5 Richter magnitude earthquake event along the Elsinore-Julian Fault Zone (approximately 14 miles northeast of the site); (3) while steep slopes and rock outcrops are present in a number of areas, substantial landslides and rockfalls were not observed on or off site and/or are not expected to represent significant hazards; (4) liquefaction potential within the on- and off-site Project areas is considered minimal due to the nature of surficial materials; (5) the Proposed Project would incorporate applicable seismic loading and design measures identified in the referenced geotechnical analyses and regulatory guidelines (e.g., the ASTM and UBC); and (6) no past or present mining activities are known within the site and immediate vicinity (including proposed off-site facility areas), and the potential occurrence of significant mineral resources is considered low (CDMG 1996).

Analysis of Cumulative Impacts

As discussed above, the Proposed Project would result in no significant impact or less than significant Project-level impacts to erosion/sedimentation, expansive soils, unique geologic resources, seismic hazards, and mineral resources. As with the Proposed Project, any future projects in the site vicinity noted in Tables 1-8, 1-9 and 1-10 of this EIR would be required to implement, as appropriate, similar site-specific measures to address potential impacts to erosion/sedimentation, expansive soils, unique geologic resources, seismic hazards, and mineral resources. Based on these requirements, **no associated significant cumulative impacts** to erosion/sedimentation, expansive soils, unique geologic resources, seismic hazards, and mineral resources are anticipated.

Mitigation Measures

Based on the significance thresholds, design considerations, and impact discussions provided in this section, no significant direct, indirect, or cumulative impacts related to geology/soils and minerals were identified from implementation of the Proposed Project. Accordingly, no mitigation measures are required and none is proposed.

4.1.3 Agricultural Resources

A detailed agricultural technical analysis was prepared to determine if implementation of the Proposed Project would result in significant impacts to agricultural resources on site and within the Ramona area. The study, prepared by HELIX and CIC Research, Inc. (2008), is found in its entirety in Appendix M of this EIR. The technical analysis concludes that there would be no significant impacts to agricultural resources associated with Project implementation, with associated significance thresholds and impact evaluations summarized below.

Guidelines for the Determination of Significance

As determined by County staff and the Project Applicant (and identified in Appendix M), the Proposed Project would have significant agricultural impacts if one or more of the following thresholds is exceeded:

1. The Proposed Project would convert California Department of Conservation (CDC)-designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) that is deemed to be significant, pursuant to the California Land Evaluation and Site Assessment (LESA) Model, to a non-agricultural use. A project is considered to be significant under the LESA Model if the total LESA Model score is greater than or equal to 40 points, and the subscores for the Land Evaluation (LE) and Site Assessment (SA) segments are each greater than or equal to 20 Points as indicated by the LESA Scoring Table listed below. The LESA Model must be applied to generate LESA scores.

Total LESA Score Scoring Decision	
0 to 39 Points	Not Considered Significant
40 to 59 Points	Considered Significant only if LE and SA subscores are each greater than or equal to 20 points
60 to 79 Points	Considered Significant unless either the LE or SA subscore is less than 20 points
80 to 100 Points	Considered Significant

2. The Proposed Project would place or establish non-permitted uses on Williamson Act contract lands. The placement or establishment of any non-permitted uses on Williamson Act contract lands would result in a significant adverse environmental effect.

3. The Proposed Project would place or establish non-permitted uses in existing agricultural zones. The placement or establishment of non-permitted uses in existing agricultural zones would result in a significant adverse environmental effect.

4. The Proposed Project would result in a cumulatively considerable loss of Farmland or U.S. Natural Resources Conservation Service (NRCS)-designated Prime Farmland Soils that are deemed to be significant pursuant to the LESA Model, or the Proposed Project would result in a cumulatively considerable loss of active agricultural operations or resources.

Guidelines Sources

The identified significance thresholds are based on criteria provided in Appendix G of the State CEQA Guidelines, the California LESA Model, and the State and County standards described in Appendix M and Subchapter 3.1, Land Use and Planning, of this EIR. Specifically, Significance Guideline No. 1 is derived from the LESA Model and the County Agricultural Analysis Guidelines (2003b); Significance Guideline Nos. 2 and 3 are derived from existing planning/zoning documents and legislation (i.e., the County Zoning Ordinance and the Williamson Act); and Significance Guideline No. 4 is derived from the County EIR Format and General Content Guidelines, and the LESA Model. These thresholds are intended to ensure conformance with existing regulatory standards, as well as to provide both adequate evaluation of potential impacts to agricultural resources, and protection of such resources where appropriate.

Analysis of Project Effects and Determination of Significant Impacts

Evaluation Under the LESA Model

The California LESA Model was used to assess potential direct agricultural impacts from implementation of the Proposed Project. The use of this model is based on the associated 1997 California Agricultural LESA Model Instruction Manual (CDC 1997). This manual, pursuant to Appendix G of the CEQA Guidelines, is specifically intended to "[p]rovide lead agencies with an optional methodology to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process." Application of the LESA model incorporates two major segments, the Land Evaluation (LE) and Site Assessment (SA) segments, to produce a numerical score for Project-specific agricultural impacts. The LE segment includes data on the quality of on-site soils based on Storie Index and Land Capability Classifications (as defined in Appendix M), while the SA segment incorporates factors including project size, water resource availability, and surrounding agricultural and protected lands within the Project zone of influence (ZOI, refer to Appendix M). Together, these assessments provide a numerical rating of the suitability and economic viability of the subject property for agricultural use. As shown in Table 2 of Appendix M, the overall LESA Model score for the Project site is 38.458, with LE and SA subtotals of 20.458 and 18.0, respectively. As described above in the discussion of significance thresholds (LESA Model Scoring Table), a total score of 40 to 59 points would be considered significant if both the LE and SA subscores are greater than or equal to 20. Because the overall score is less than 40 and the SA subscore is less than 20 (i.e., 18.0), direct agricultural impacts

from implementation of the Proposed Project are considered **less than significant**, pursuant to the LESA model and Significance Guideline No. 1.

Conversion of On-site Important Farmlands and Prime Farmland Soils

No areas designated as CDC Prime Farmland, Farmland of Statewide Importance, or Unique Farmland are located within the Project site (Appendix M). Accordingly, no associated impacts from conversion of such areas to non-agricultural use would occur from implementation of the Proposed Project. The Project site does include approximately 107.1 acres of NRCS-designated Prime Farmland Soils. This designation is similar to the CDC Prime Farmland category, with the principal difference being that the CDC designation requires that the subject areas have supported irrigated agriculture sometime within the previous two mapping cycles (typically four years). Approximately 64.4 acres (or 60 percent) of the mapped on-site Prime Farmland Soils are located within an existing on-site biological open space easement, and are thus currently unavailable for agricultural use. The remaining 42.7 acres would be impacted by the Proposed Project, either through development or the dedication of additional biological open space. The loss of these areas for potential agricultural use is considered to be a **less than significant** impact, based on the following considerations (and pursuant to Significant Guideline No. 1): (1) based on the LESA Model analysis outlined above, no significant impacts were identified in relation to converting the Project site to non-agricultural use, with the LESA Model incorporating similar soil quality criteria as the NRCS designation; (2) based on the information noted above, none of the on-site soils are designated as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland by the CDC; (3) no agricultural activity has occurred on the NRCS-designated Prime Farmland Soils since at least the 2001/2002 growing season, and no irrigated agriculture has occurred in these areas (or the entire Project site) for at least the past 40 years (refer to Appendix M); and (4) areas of NRCS Prime Farmland Soils that contain sensitive biological habitats would likely be unavailable for agricultural use even without implementation of the Proposed Project, due to the prohibitive costs associated with mitigating associated biological resource impacts (e.g., purchase of off-site habitat credits).

Impacts to Off-site Agricultural Resources and Operations

As outlined in Subchapter 1.1, the proposed design includes a number of off-site roadway and utility structures. Because Wastewater Management Option 2 does not involve any proposed off-site facilities, it is not discussed below, with associated potential impacts included in the above LESA Model evaluation (which evaluates the entire Project site). Potential impacts related to off-site roadways, water utilities, and wastewater facilities are described below.

The Proposed Project would involve widening Ash Street between Pine and Alice streets, Montecito Way between the Project site and Montecito Road, Montecito Road between Montecito Way and Main Street, as well as modifying a number of local intersections to accommodate Project-related traffic. Impacts to agricultural areas from the described roadway improvements would involve two areas of existing oat hay farming and a eucalyptus farm (used to provide decorative elements for floral arrangements) (refer to the Agricultural Technical Study in Appendix M). Associated potential impacts to agricultural resources would include the following: (1) approximately 0.45 acre (4 percent) of the existing oat hay operation at the Montecito Way/Montecito Road intersection (not including the water pump station site); (2) approximately 0.13 acre (5 percent) within an existing oat hay operation located along the north side of Montecito Road east of Montecito Way; and (3)

approximately 0.66 acre (4.9 percent) within the portion of a eucalyptus farm located along Montecito Road.

Off-site Water Facilities. Proposed off-site water facilities include two supply pipelines located in existing roadways, a booster pump station (near the Montecito Way/Montecito Road intersection as noted above), and a storage tank and associated pipeline/access road. As described in Subchapter 1.1, the capacity of the proposed off-site water tank would vary between 0.91 and 1.26 million gallons, depending on the selected wastewater management option. The overall disturbance area (approximately 2.2 acres) would be the same for either water tank design, however, with this area not encompassing any agricultural operations. Potential agricultural impacts associated with off-site water utilities would consist of converting approximately 0.23 acre of existing oat hay cultivation in association with the pump station site.

Wastewater Management Option 1. Under Wastewater Management Option 1, no on-site wastewater treatment facilities would be built, and a sewer force main would be constructed from the southern Project site boundary to just south of the terminus of Kalbaugh Street, almost wholly within the Montecito Way, Montecito Road, and Kalbaugh Street roadbeds. Approximately 50 feet south of the terminus of Kalbaugh Street and north of Santa Maria Creek, the new line would connect to an existing facility. The wastewater from the Proposed Project would be treated at existing Santa Maria WTP, if capacity becomes available (refer to Subchapter 1.1 and Appendix M). The force main would be located within roadway improvement corridors, and no impacts to agricultural lands would occur.

Summary of Potential Impacts to Off-site Agricultural Resources and Operations. Agricultural impacts associated with the identified off-site facilities would be **less than significant**, based on the following considerations: (1) the generally small impact areas involved; (2) the location of impacts at the boundary of the existing cultivated area and adjacent roadway for the Montecito Way/Montecito Road intersection, Montecito Road, and the eucalyptus farm sites; (3) the fact that no CDC-designated Unique Farmland, Prime Farmland, or Farmland of Statewide Importance would be impacted by the Proposed Project.

Conversion of Williamson Act Contract Lands or Agricultural Preserves

As discussed in Appendix M, no Williamson Act contract lands or agricultural preserves are located within the Project site or the associated ZOI. Accordingly, no associated impacts would occur from implementation of the Proposed Project, pursuant to Significance Guideline No. 2.

Zoning Conflicts

The majority (926.2 acres) of the Project site is currently zoned S88 (Specific Plan), with the remaining areas (9 acres) zoned as A70 (Limited Agriculture). Because the entire site would be zoned S88 under the Proposed Project, as well as the fact that there is no current or proposed on-site agricultural activity, **less than significant** impacts related to conflicts with existing or proposed zoning designations would result from Project implementation (pursuant to Significant Guideline No. 3). It should also be noted that the S88 zoning category (and the associated Specific Plan land use designation) would accommodate certain types of agriculture, such as horticulture (refer to Appendix M). While the Project would include a number of agricultural restrictions to ensure compatibility with proposed residential uses (e.g., through CC&Rs, refer to Subchapter 1.1 and Appendix M), activities such as small orchards and gardens would be allowed on individual lots.

The Proposed Project also would change the on-site Animal Schedule Designator from "L" to "A." (Residential lots that would allow horses [1 through 30] would have an animal designator of "F," which allows two horses plus one per 0.5 acre over one acre.) The Animal Schedule Designator identifies restrictions and requirements related to uses such as animal sales, raising, and enclosures, pursuant to Section 3100 of the County Zoning Ordinance. The "A" Designator is more restrictive to animal-related uses, and typically either precludes or requires a Major/Minor Use Permit for activities such as horse stables, kennels, and large or specialty animal raising projects (e.g., beekeeping). This designator also includes the most restrictive setback requirements for animal enclosures. The current "L" designator allows most of the described commercial animal activities (e.g., boarding and raising), with Major or Minor Use Permits typically required for operations with larger numbers of animals. The overall result of the described change in on-site Animal Schedule Designator would be to preclude or require separate discretionary approval for most agricultural-related animal uses within the Project site. This proposed change in the on-site designator is based on the generally small lot sizes associated with the proposed development (1.8 acres maximum and typical lot sizes of 0.5 acre), as well as the fact that agricultural-type animal uses such as keeping/raising large animals (other than horses) or large numbers of smaller animals would not be compatible with the residential nature of the Proposed Project. In addition, agricultural-animal uses would be further restricted through the proposed use of CC&Rs attached to sales documents for individual residential properties. Specifically, proposed CC&Rs would preclude all agricultural-related animal uses within the Project site.

Less than significant agricultural impacts are anticipated from the described restrictions on agricultural-related animal activities, based on the following considerations (and pursuant to Significance Guideline No. 3): (1) the low likelihood of on-site residents proposing to conduct agricultural-related animal activities; (2) the lack of on-site agricultural-related animal uses since 2000; and (3) the fact that historical agricultural-related animal uses within the last 100 years were limited to periodic grazing of a small number of beef cattle (i.e., up to approximately 50 head).

Indirect Impacts

The proposed Montecito Ranch development is **not expected to significantly affect or be affected** by existing agricultural use in the surrounding area. Specifically, the proposed rural residential development (and associated open space preserve, local park, historic park site, and charter high school site) would be compatible with surrounding rural residential, agricultural, and grazing uses (i.e., within the adjacent The Nature Conservancy preserve), as well as related planning and zoning requirements. The Nature Conservancy preserve (formerly the Davis SPA) adjacent to the western site boundary was purchased in December 2005 for preservation as part of the Ramona Grasslands project, although cattle grazing will continue on the site at least temporarily as a form of weed control (Appendix M). The Proposed Project design, coupled with the site topography, would result in large buffer areas between existing off-site agriculture uses and proposed residential sites. Given that the majority of the proposed home sites are located within the eastern and central portions of the property, existing agriculture that flanks the site to the north, south, and west would be separated from most home sites by open space areas and/or intervening development. As previously noted, the Proposed Project also would allow limited agricultural uses on residential lots (e.g., small orchards), would allow horsekeeping on lots 1 to 30, and would provide equestrian trails on site, which would enhance the compatibility between the Project site and surrounding rural/agricultural uses.

Potential Project-related indirect air and water pollution impacts to surrounding agricultural uses from proposed development and the related increase in motor vehicle traffic would be **less than**

significant, based on mandatory compliance with local planning/zoning requirements, APCD standards, and RWQCB regulations. Such efforts would include the proposed Project design elements described above (e.g., buffers), as well as the use of detention basins to regulate post-development flows, control of construction-related contaminant discharge through conformance with applicable regulatory requirements (e.g., local dust control and NPDES standards), and long-term contaminant control through conformance with County/NPDES regulatory requirements and implementation of appropriate BMPs.

Analysis of Cumulative Impacts

The assessment of potential cumulative impacts involves evaluating the effect of the Project's contribution to regional agricultural impacts in relation to past, present, and potential future impacts to agricultural production and/or resources (as discussed in detail in Appendix M), as well as Project impact contributions with respect to the identified List of Cumulative Projects.

Agricultural Production/Conversion

The unique character of Ramona is indicative of its strong agricultural and rural lifestyle. A majority of the Ramona area is currently utilized for agricultural activities. According to the RCP (County 1978, as amended: 8), approximately 35,500 acres were utilized for general and intensive agriculture as of 1986, while over 27,000 acres were utilized for residential purposes ranging from combined residential/agricultural use on 4- to 20-acre lots to high-density residential development (24 units per acre). Ten SPAs identified in the RCP, including Montecito Ranch, cover an additional 9,600 acres. Building restrictions based on topography, biology and community character limit development to only a portion of the total area, with less than half of the 9,600 acres eligible for development (and one property, the Davis Ranch SPA, now designated as a permanent open space preserve). Thus, after buildout, the Ramona area would retain large areas of open space within estate residential communities. The permanent conversion of the Project site and applicable off-site areas to non-agricultural use could result in the reduction of approximately 310 acres of dry farmed cultivation (i.e., oat hay), 600 acres of livestock grazing and 50 head of cattle in any given year, as well as 0.66 acre of cultivated eucalyptus. Potential impacts to additional types of agriculture in the noted areas (e.g., irrigated crop production) are not considered in this analysis, due to the lack of such uses historically and the fact that water for the cultivation of irrigated crops is currently unavailable.

For livestock grazing, potential cumulative impacts associated with the loss of 600 acres and 50 head of cattle are considered **less than significant**, pursuant to Significance Guideline No. 4, due to the incremental nature of these uses compared to Countywide totals (refer to Appendix M).

The production of oat hay in San Diego County varied substantially by year (in terms of both harvested acreage and yield) between 1986 and 2005. These variances were due primarily to the fact that local oat hay production involves dry farming, and is therefore dependent on local precipitation levels. Accordingly, the local production of oat hay regularly experiences variances of harvest acreage and yield that substantially exceed the yearly totals for the Project site and applicable off-site areas. The removal of these areas from oat hay production, therefore, would be expected to have less of an effect on local oat hay harvest area and yield than yearly rainfall variation. Based on the above discussions of the nature, extent, and productivity of local agricultural use (specifically oat hay), **no associated significant cumulative impacts** are anticipated from Project implementation, pursuant to Significance Guideline No. 4.

Potential cumulative impacts associated with the loss of 0.66 acre along the portion of Montecito Road proposed for widening, are considered **less than significant**, pursuant to Significance Guideline No. 4. This conclusion is based on the minor acreages involved, as well as the fact that the noted impacts would not decrease the viability of continued use of the eucalyptus farm for commercial agriculture. The noted impact area of 066 acre represents approximately 0.02 percent of the 2005 Countywide ornamental tree and shrub acreage of 3,650 (refer to the Agricultural Technical Report in Appendix M).

List of Projects Evaluation

A cumulative study area and projects list have been developed as part of the Proposed Project CEQA analysis, with modified versions used for this evaluation. The agricultural cumulative project list and study area are shown on Table 5 and Figure 13 of Appendix M. The agricultural cumulative study area is based on a number of considerations including: (1) applicable cumulative project locations relative to the Project site; (2) the presence of active agricultural activity or designations; (3) agricultural resource potential; (4) physical barriers such as steep or rocky terrain; and (5) planning or cultural barriers such as planning area designations, major roadway corridors, or substantial urban development. Based on these criteria, the noted area was delineated to reflect boundary considerations including portions of the Ramona Community Planning area boundary to the north, northwest, and southwest; steep, rocky terrain to the north, south, east, and west; urban development to the southeast; and a lack of applicable cumulative project sites in areas to the north, south, and west.

The cumulative projects shown on Table 5 and Figure 13 of Appendix M include agricultural resources and associated potential impacts including cultivated citrus/avocado (or other subtropical) orchards, field crops, dry-farmed oat hay, alfalfa hay, and vineyards, as well as areas of designated Williamson Act contracts/preserves, CDC-designated Important Farmlands, and NRCS-designated Prime Farmland Soils. The following approximate impact totals are provided from available information for the listed projects: (1) 836 acres of dry-farmed oat hay; (2) 12 acres of alfalfa hay; (3) 0.2 acre of vineyards; (4) 40 acres of citrus, avocado, or other subtropical fruit orchards; (5) 13 acres of CDC Prime Farmland; (6) 10 acres of CDC Farmland of Statewide Importance; (7) 30 acres of CDC Unique Farmland; (8) 402 acres CDC Farmland of Local Importance; (9) 593 acres of CDC Grazing Land; (10) 310 acres of NRCS Prime Farmland Soils; and (11) one Williamson Act contract and one Williamson Act preserve, both of unspecified size. Implementation of the Proposed Project is expected to result in **less than significant** cumulative impacts related to current agricultural uses, CDC Important Farmlands, NRCS Prime farmland Soils, or Williamson Act contract/preserve lands with respect to the identified cumulative projects list in Appendix M (and pursuant to Significance Guideline No. 4), based on the following considerations:

- There are currently no agricultural activities within the Project site, with active agricultural use in off-site facility areas including 0.66 acre of eucalyptus cultivation, and up to approximately 0.8 acre of dryland oat hay cultivation. Historical agricultural use within the Project site included approximately 300 acres of dry-farmed oat hay cultivation and seasonal grazing of 50 head of cattle on 600 acres. Based on these conditions and the agricultural uses listed above for cumulative projects, implementation of the Proposed Project would not contribute to cumulative impacts associated with alfalfa hay, vineyards, citrus/avocado orchards, or other cultivated crops that do not occur within the Project site or applicable off-site areas.

- No areas of eucalyptus (or other ornamental tree and shrub) cultivation are identified for any of the cumulative projects, with no associated cumulative impacts related to the loss of 0.66 acre of eucalyptus cultivation from the Proposed Project.
- The combined impact to oat hay cultivation from the Proposed Project and the identified cumulative projects in Appendix M is approximately equal to the average annual variance for oat hay cultivation during the period of 1986 to 2005 (refer to Appendix M). Accordingly, the Countywide production of oat hay regularly experiences variances that equal or exceed the cumulative effects that would occur from the Proposed Project and the identified cumulative project list. Based on these conditions, no significant cumulative impacts to local oat hay production would be associated with implementation of the Proposed Project.
- The referenced cumulative projects identify cattle grazing impacts on approximately 450 acres, with the number of animals not specified. Based on the Project site grazing area (600 acres), the associated small number of animals (50 head), the relatively large grazing area (207,000 acres) and number of animals (24,000) present Countywide in 2005 (Appendix M), the potential loss of grazing area and animals associated with the Proposed Project and the cumulative projects list would not represent a significant cumulative impact.
- The Project site and off-site facility areas do not include any areas of CDC-designated Prime Farmland, Farmland of Statewide Importance, or Williamson Act contracts/preserves. Accordingly, Project implementation would not contribute to cumulative impacts associated with any of these designations.
- The Proposed Project and off-site facilities would result in approximately 48 acres of impact to Farmland of Local Importance and 27 acres of impact to Grazing Land. The referenced cumulative projects list includes approximately 402 acres of impact to Farmland of Local Importance and 593 acres of impact to Grazing Land. Combined impacts to the described CDC designations from the Proposed Project and the listed projects are not considered cumulatively significant based on their incremental nature relative to mapped areas within the cumulative study area. Specifically, identified combined impact totals for Farmland of Local Importance (450 acres) and Grazing Land (620 acres) represent approximately 7.5 percent and 7 percent, respectively, of the respective mapped areas within the cumulative study area.
- The Proposed Project would impact approximately 42.7 acres of NRCS Prime Farmland Soils, based on the total on-site area of 107.1 acres and the location of 64.4 acres of these soils within an existing biological preserve. The referenced cumulative projects include approximately 310 acres of NRCS Prime Farmland Soils that would be impacted by associated development, for a total cumulative impact to NRCS Prime Farmland Soils of approximately 353 acres (refer to Table 5 in Appendix M). Approximately 5,223 acres of NRCS Prime Farmland Soils are mapped within the agricultural cumulative study area (Appendix M), with this area adjusted to reflect existing development based on review of current aerial photographs and CDC-designated Urban and Built-up Land (i.e., areas where mapped Prime Farmland Soils have likely been lost or substantially altered by previous development). Pursuant to these adjustments, a total of approximately 4,700 acres of NRCS Prime Farmland Soils were identified within the Project agricultural cumulative study area, as depicted on Figure 13 of Appendix M. Accordingly, the total area of impact to NRCS Prime Farmland Soils within the Project agricultural cumulative study area of 353 acres represents approximately 7.5 percent of the identified total of 4,700 acres. Based on the fact that roughly 92.5 percent of the identified NRCS Prime Farmland Soils within the Project

cumulative study area would not be impacted by the listed projects (including the Proposed Project), no associated significant cumulative impacts would occur.

Mitigation Measures

Based on the significance thresholds and impact discussions provided in this section, no significant direct, indirect, or cumulative related agricultural impacts were identified from implementation of the Proposed Project. Accordingly, no mitigation measures are required and none are proposed.

4.1.4 Hazards and Hazardous Materials

The following analysis is based on information and conclusions contained in the Phase I Environmental Site Assessment conducted for the Proposed Project by Geosoils, Inc. (Geosoils; 1999 and 2007b), as well as other applicable sources. A summary of information from the referenced study and additional data sources is provided below, with the entire Phase I report included in Appendix N of this EIR.

Guidelines for the Determination of Significance

The Proposed Project would result in significant impacts related to hazards and hazardous materials if one or more of the following thresholds are exceeded:

1. The Project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. Operation of the Project could result in upset or accident conditions involving the release of hazardous materials into the environment.
3. Operation of the Project could result in hazardous emissions or the handling of hazardous materials, substances, or wastes within one-quarter mile of an existing or proposed school, in non-compliance with existing hazardous substance regulations.
4. The Project site is included on a list of hazardous materials sites compiled, pursuant to Government Code Section 56962.5.
5. Operation of the Project would cause substantial adverse effects on human beings either directly or indirectly.
6. The Project would expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.
7. The Project is located within an airport land use plan or within two miles of a public or private airport, and would result in a safety hazard for people residing or working in the Project area.
8. The Project would impair or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Guidelines Sources

The identified significance thresholds are based on criteria provided in Appendix G of the State CEQA Guidelines, as well as applicable regulatory requirements identified in sources including Appendix N

of this EIR. Specific regulatory requirements include the federal Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); Chapter 6.95, Division 20 of the California Health and Safety Code [handling and storage of hazardous materials]; and the California and County of San Diego Fire Codes. The listed thresholds are intended to ensure conformance with existing regulatory and industry standards, as well as to protect public safety and private property from identified hazards and hazardous material issues. The administering agency for these regulations in San Diego County is the County Department of Environmental Health (DEH), Hazardous Materials Division (HMD).

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An NOP and EAF were prepared for the Project by the County on February 28, 2002 (Appendix A). This analysis identified potentially significant impacts under Hazards for the issues of fire hazards and flooding. Potential flood-related issues are addressed in Section 4.1.1, Hydrology/Water Resources, with fire hazards and other applicable issues subsequently identified by the County (including hazardous materials, airport safety, and emergency response/evacuation plans) discussed below.

Hazardous Materials

The Proposed Project potentially could result in significant impacts related to the accidental release of hazardous materials, pursuant to Significance Guideline Nos. 1 through 3. Specifically, these potential effects would be associated with: (1) occupation of the Project site as a residential community; (2) operation of the proposed on-site WRF under Wastewater Management Option 2; and (3) operation and maintenance of on-site school and park sites.

Long-term occupation of the Project site as a residential community would entail some potential for impacts related to the use, storage, and disposal of household-related hazardous materials such as chemical pesticides, herbicides, and fertilizers; cleaning agents; and chemicals related to pool and spa maintenance. As described above in Section 4.1.1, Hydrology/Water Resources, the Project SWMP identifies a number of educational efforts targeting household-related hazardous materials, including the use of storm drain stencils to discourage illicit discharges, and the distribution of informational materials on topics such as: (1) storm water runoff pollution prevention tips for homeowners, yard work (e.g., landscaping, gardening, and pest control) and pet waste; and (2) storm water BMPs for swimming pool and spa cleaning. Such materials would include guidelines on using appropriate types of chemicals for specific tasks, proper application rates and methodologies pursuant to manufacturer's specifications and legal requirements, and proper disposal methods and locations for hazardous materials and containers. While the ultimate level of impact related to the use, storage, and disposal of household hazardous materials would be determined by the actions of individual residents, the described measures would reduce the potential for Project-related impacts from household hazardous materials to **less than significant** levels, pursuant to Significance Guideline Nos. 1 and 2.

The proposed operation of the on-site WRF under Wastewater Management Option 2 would involve the use and storage of hazardous materials such as liquid chlorine and sodium hypochlorite. Chlorine gas would not be used or stored on site. Based on these conditions, operation of the WRF would require the preparation of a Hazardous Material Business Plan (HMBP), pursuant to Division 20, Chapter 6.95 of the California Health and Safety Code. Specifically, these requirements state that any business handling, storing, or disposing of a hazardous substance at or above the designated threshold

quantity[1] must prepare an emergency response plan designed to minimize hazards to human health and the environment from fires, explosions, or an unplanned release of hazardous substances into the air, soil, or surface water. HMBPs are required to include three sections: (1) an inventory of hazardous materials on the site; (2) an emergency response plan; and (3) an employee training program. The preparation of an HMBP is intended to aid both employers and employees in managing emergencies at a given facility, as well as to better prepare emergency response personnel for handling a wide range of emergencies that could potentially occur at the WRF. The HMBP would be implemented immediately upon the occurrence of a fire, explosion, or unplanned chemical release at the WRF or other applicable facilities (as discussed below). The HMD is responsible for regulating hazardous materials business plans and chemical inventories, hazardous wastes, permitting, and risk management plans. The preparation of an HMBP is a regulatory requirement that would be implemented for any aspect of the Project that would include the use or storage of hazardous materials as described, prior to issuance of a building permit. The Business Plan would be approved by the HMD. Accordingly, preparation of an HMBP is ensured for all appropriate aspects of the Project, with associated potential impacts to be avoided or reduced to **less than significant** levels, pursuant to Significance Guideline Nos. 1 and 2.

The Proposed Project would include the dedication of a public charter high school site, with the above-described use and storage of hazardous materials at the WRF (and potentially other sites) to be located within 0.25 mile of the proposed school site. Although hazardous materials would be used and stored in proximity to the school site, uses of such materials would be required to conform with applicable hazardous materials regulations, including the preparation and implementation of an HMBP. Existing regulations also require the DEH to conduct ongoing routine inspections of applicable hazardous materials use and storage sites to ensure conformance with associated laws and regulations, identify safety hazards that could cause or contribute to an accidental spill or release, and suggest preventative measures to minimize the risk of such a spill or release. Based on conformance with the described requirements related to hazardous materials, the Project would result in **less than significant** associated impacts related to the location of the proposed school site, pursuant to Significance Guideline No. 3.

The main source of hazardous materials associated with operation and maintenance of the school and park sites would consist of chemical pesticides, herbicides, and fertilizers related to landscaping. All use, storage, and disposal of hazardous materials associated with the operation and maintenance of the school and park sites would conform with applicable regulations, including requirements for application methods and rates and safe handling procedures, pursuant to legal requirements and manufacturer's specifications. In addition, the use, storage, and disposal of hazardous materials associated with the school and park sites would be subject to HMBP requirements if applicable, pursuant to the regulatory threshold quantities described above in this section. Based on conformance with the described requirements, potential impacts related to the use, storage, and disposal of hazardous materials at on-site school and park sites would be avoided or reduced to **less than significant** levels (per Significance Guideline Nos. 1 through 3).

[1] Businesses handling, storing, or disposing of hazardous substances in excess of the following amounts must have a Hazardous Materials Business Plan in place upon issuance of a building permit.
1. 55 gallons of a liquid;
2. 500 pounds of a solid;
3. 200 cubic feet of compressed gas at standard temperature and pressure; and/or any amount of a highly toxic compressed gas (i.e., compressed gasses with a Threshold Limit value of 10 parts per million or less as referenced by the American Conference of Governmental Industrial Hygienists).

The Preliminary Phase I Environmental Site Assessment conducted for the Project site (Appendix N) concluded that there are presently no detectable significant hazardous materials either on site or in the Project vicinity, nor is there any indication (including agency database listings) of past spills or other activities that may have resulted in residual contamination (GeoSoils 1999 and 2007b). Specific investigations of hazardous materials within the site (including an historic "household dump" and residue from agricultural pesticide use) did not identify any associated significant hazards or related impacts to existing or proposed uses (including schools) within the Project site and vicinity (GeoSoils 1999 and 2007b). The dump site was concluded to have been used for household wastes (with no evidence of hazardous material disposal), with all associated trash and debris apparently "[r]emoved from the area, including the underlying topsoils" (GeoSoils 1999 and 2007b). Historical agricultural use of the site for oat hay farming and livestock grazing apparently did not entail the use of chemical pesticides, with associated soil testing concluding that pesticide levels were at "less than detection limits" for all samples (Appendix N). The Proposed Project would not disturb the existing Montecito Ranch House, and therefore would not release any asbestos or lead paint, should such materials be present in the Ranch House. Based on the described conditions, Project implementation would result in **less than significant** impacts related to the potential for on-site contamination, pursuant to Significance Guideline Nos. 4 and 5.

Implementation of the Project also is not expected to result in any potential water quality impacts related to contamination from the occurrence of hazardous materials within the Project site and vicinity (per Significance Guideline Nos. 4 and 5). Specifically, this conclusion is based on the following considerations: (1) the Limited Phase I Environmental Site Assessment conducted for the Project site did not identify the presence of hazardous materials, nor did the study recommend any additional on-site investigation; (2) an underground storage tank site, located at 1093 Montecito Road (south of the Project site and east of the off-site Montecito Way roadway alignment), was reported to have been removed in 1998, with no reported unauthorized release; and (3) a reported leaking underground storage tank, located at 2450 Montecito Road (west of the proposed off-site roadway), is outside and hydrologically down-gradient of the proposed off-site roadway area. This tank also was reported to have been removed in 1998, with site assessment of associated soil contamination identified as "ongoing" (GeoSoils 1999 and 2007b).

While the above discussions did not identify any significant impacts to or from the Project in relation to hazardous materials, a number of environmental design measures are proposed during Project grading and construction to address associated potential issues. Specifically, these potential issues are related to the presence of previous on-site residential uses and associated water wells and the potential need to extract and dispose of groundwater during Project construction. The following environmental design considerations also are included in Chapter 1.0, Project Description, and "List of Mitigation Measures and Environmental Design Considerations" at the end of this EIR:

- Existing on-site water wells shall be abandoned in accordance with the California Well Standards as published by the California Department of Water Resources, with oversight provided by the DEH as part of the Project Site Assessment and Mitigation (SAM) Program.
- Existing septic systems within the Project site shall be removed during the construction phase as part of the Project SAM Program, pursuant to direction by the DEH.
- Project construction activities shall conform with applicable requirements of the NPDES General Groundwater Extraction Waste Discharge Permit, if appropriate (i.e., if discharge of extracted groundwater exceeds permit criteria).

Potential impacts associated with existing/potential hazardous material sites and related adverse effects to human beings, water resources, and the environment would be avoided or reduced to **less than significant** levels through the identified environmental design considerations (pursuant to Significance Guideline Nos. 4 and 5).

No State funding would be associated with the initial grading of the proposed site for the charter high school. Therefore, the Project would not be required to comply with Section 17078.54(c)(1)(A) of the California Education Code (pursuant to State Assembly Bill 14), which requires that an associated Phase I Environmental Site Assessment and/or a Preliminary Endangerment Assessment (PEA) be completed. This requirement will apply only to future construction of the school, which is not a part of the Proposed Project.

Vector and Rodent Control

The WRF and the equestrian staging area within the historic park would implement a number of measures to reduce attraction to flies, mosquitoes, and other vectors, including rodents. Vector attraction would be limited to two primary components of the reclamation process, the screening process and the treated water storage ponds. The storage ponds would store up to approximately 9.24 million gallons of reclaimed water during wet weather years. During such years, water would be pumped into the ponds beginning around November and ending in February or March, with the water completely used/drained by approximately the end of June. Thus, during wet weather years, the ponds could maintain water for up to eight months. It is not expected that the wet weather storage would be used every year and it may be dry for up to two to three years at a time. In addition, a major component to controlling the fly population is manure management. The following Project design measures would be implemented to reduce attraction of flies, mosquitoes, other vectors, including rodents:

- A MMFVCP has been prepared for the WRF and equestrian staging area. Management measures within the MMFVCP would become conditions of approval of the MUP for the WRF, ensuring that they would be implemented and enforced. Such measures may include the following:
    - Screened material would be removed from the facility two to three times per week. The screening process would take place indoors, with screened material disposed of in a commercial dumpster that would be housed indoors until transported off site. Routine removal of material would minimize fly attraction/propagation.
    - Synthetic pesticides (e.g., methoprene and cyromzine), biochemical pesticides (i.e., Bti: *Bacillus thuringiensis israeliensus*), and/or biological controls (e.g., mosquito fish) would be applied to the wet weather storage area to control attraction/propagation of mosquitoes.
    - Sodium hypochlorite addition to the treated water would be increased for long-term storage, reducing attraction to flies and mosquitoes.
    - The wet weather storage ponds would be disked annually in the Fall to remove vegetation within and around the perimeter of the ponds to limit rodent habitat.
    - The arena and holding pens would be cleaned weekly, with immediate disposal into a covered dumpster. The dumpster contents would be taken to an approved landfill once a week.

- Weeds would be controlled to allow sun penetration and air movement to keep grounds dry.
- Good drainage would be maintained to avoid standing water.
- Manure storage bins would be placed onto impervious surfaces with appropriate berming.
- A water spout would be provided for horse owners to use their own buckets to water their horses. Valves on all water devices would be leak-proof. No horse troughs (i.e., standing water) would be provided.
- Yellow jacket and fly traps would be installed if these insects become a problem.

- Measures would be included in the CC&Rs regarding manure management on residential lots that would allow horsekeeping.

Implementation of procedures detailed in the MMFVCP would avoid the potential for an increase in vector populations at the WRF and equestrian staging area and would reduce potential public health and safety impacts to **less than significant** levels, pursuant to Significance Guideline No. 5.

Fire Hazards

Fire protection within the Ramona area is provided by three agencies: (1) California Department of Forestry and Fire Protection (CDF), which serves all wildland fires in the Ramona Community Planning area, (2) RMWD, which governs Ramona Fire District (RFD) and works under contract with CDF, and (3) San Pasqual Volunteer Fire Department. The Project site, except for one parcel (Parcel 280-010-08-00) along the northwestern boundary, is within the service area of the CDF/RFD for fire protection. Parcel 280-010-08-00 is within the service area of the San Pasqual Volunteer Fire Department. CDF/RFD Station No. 80 is located approximately three miles from the Project site at 839 San Vicente Road. This station is currently equipped with one fire engine, one medical unit and one rescue apparatus as well as five firefighters/paramedics on duty at any one time. As stated above, Parcel 280-010-08-00 is within the service area of the San Pasqual Volunteer Fire Department Station No. 93, which is located approximately 10 miles from the Project site at 17701 San Pasqual Valley Road. Parcel 280-010-08-00 would not be developed under the Proposed Project, but would be dedicated as open space. Due to the vegetation and topographical characteristics of the site, it is defined as a hazardous wildfire area. According to the Project Applicant, firebreaks are currently maintained on site.

According to the Project Facility Availability Form completed by the Fire Marshal on August 8, 2006 and the current Project design, the anticipated emergency travel time to the Project site is five minutes (refer to Section 4.1.8, Public Services, for details). This response time meets the threshold emergency response time of five minutes for residential lots smaller than two acres, as stated in the General Plan Public Facility Element, Section 11, Objective 1. The issue of fire protection services is addressed in Section 4.1.8, Public Services, of this EIR. The Proposed Project would comply with all access, design, and fuel management policies as specified in the Uniform Fire Code, Article 9 and Appendix II-A, Section 16, as adopted, amended and titled "Consolidated Fire Code" by the CDF/RFD (County 2001), as well as additional fire requirements specified by the CDF/RFD as included in Appendix O.

All development projects must be designed in accordance with the Consolidated Uniform Fire Code (County of San Diego 2001) to minimize fire hazard risks to persons and property. This includes compliance with brush management requirements around all structures. Other requirements related to fire prevention from the Ramona Fire Prevention Bureau include:

- Newly created roads must have a minimum graded width of 28 feet with a minimum improved width of 24 feet and be constructed of asphaltic concrete.
- Cul-de-sacs shall be graded to a radius of 40 feet and shall be improved with asphaltic concrete to a radius of 36 feet.
- Fire hydrants shall be installed every 1,000 feet measured from the intersection of roadways. A minimum water flow of 2,500 gpm shall be required.
- If a minimum water flow of 2,500 gpm cannot be met, an automatic sprinkler system must be installed in all residential dwelling units. Under this scenario only, spacing of fire hydrants may be allowed every 1,300 feet.
- County-approved street signs shall be installed at every intersection created by the Proposed Project.
- "No Parking Fire Lane" signs shall be required for all roads with a minimum improved width of 24 feet. The locations of these signs will be determined by the CFD/RFD.
- A fuel modification zone of 100 feet shall be required around all structures (refer to Figures 1-7 through 1-10 and 1-34 of this EIR).

Based on the described conditions regarding fire safety requirements, with which the Proposed Project must comply, **less than significant** impacts related to fire access or safety would be associated with proposed development (pursuant to Significance Guideline No. 6).

Airport Safety and Plans

The Ramona Airport influence zone includes the Flight Activity Zone (FAZ), which designates "an area of significant risk resulting from aircraft takeoff and landing patterns where incompatible development is prohibited." The Montecito Ranch SPA is approximately 0.5 mile north of the Ramona Airport. Moreover, the existing traffic pattern/overflight area lies to the south of the Project site. Therefore, the Project site would not conflict with the existing airport operations or adopted plans. Based on the described location of the Project site and off-site facilities relative to the Ramona Airport FAZ and RPZ, impacts associated with hazard/public safety that would occur from Project implementation would be **less than significant**, pursuant to Significance Guideline No. 7.

As described in Subchapter 3.2, Noise, the Project site is located approximately 0.3 mile from the existing (2004) and projected (20+ years) 55 dB(A) CNEL contour for the Ramona Airport, with **no associated significant impacts** identified in association with Significance Guideline No. 7.

The Final EIR/EA prepared for the Ramona Airport Improvements Project was certified in 1998, but the improvement project has not been approved. The EIR/EA takes surrounding SPAs into consideration in its analysis of safety and land use compatibility. The EIR/EA concluded that safety or land use impacts to surrounding SPAs associated with the proposed airport improvements project would be **less than significant**. Therefore, the Proposed Project would not conflict with proposed

uses as described in the EIR/EA, should any of the proposed airport improvements be implemented. In view of the preceding analysis, the Proposed Project would **not result in significant impacts** to airport safety and plans, in association with Significance Guideline No. 7.

Emergency Response and Evacuation Plans

The following assessment evaluates potential conflicts between implementation of the Proposed Project and a number of emergency plans in San Diego County. Specific plans evaluated below include documents related to overall emergency and disaster planning within the County, as well as individual plans for issues such as nuclear facility emergencies, oil spills, water and energy supply shortages, and dam-related inundation. Additional potential emergencies involving fire and flood hazards are addressed above in this section and in Section 4.1.1, Hydrology/Water Resources, respectively.

The County Operational Area Emergency Plan is a framework document that provides direction to local jurisdictions for developing specific emergency response and evacuation plans within the County. The plan provides guidance for overall emergency planning and requires local jurisdictions to develop emergency plans for applicable issues, areas, and facilities. Implementation of the Proposed Project would not conflict or interfere with this plan, because it would not prohibit or adversely affect the adoption or implementation of existing or future emergency plans by local agencies.

The San Diego County Nuclear Power Station Emergency Response Plan entails comprehensive emergency planning associated with the San Onofre Nuclear Generating Station, the only operating nuclear facility within the County. The emergency plan for San Onofre identifies a 10-mile radius emergency planning zone around the plant, with specific criteria evaluated within this zone including accident assessment and classification, establishment of emergency communications and medical response, radiation exposure control, and public information/education. Because the noted 10-mile zone for the San Onofre facility does not encompass either the Project site or areas within the jurisdiction of the unincorporated County of San Diego, implementation of the Proposed Project is not expected to conflict or interfere with any associated emergency response or evacuation plans/efforts.

The San Diego County Oil Spill Contingency Element identifies a number of measures to address response and cleanup measures for offshore oil spills, and to ensure that local interests are adequately assessed in related State and federal planning efforts. Because the Project is not located along the coast or within the coastal zone, no associated conflicts are expected with the Oil Spill Contingency Element.

The Emergency Water Contingencies Annex and Energy Shortage Response Plan addresses emergency response and planning related to potential water and energy shortages. Because the Proposed Project would not involve effects to major water or energy supply infrastructure, such as the California Aqueduct or regional electrical generation/transmission facilities, no associated conflicts are expected.

The County of San Diego Operational Site Specific Dam Failure Evacuation Data Plan identifies dam-related inundation areas and evaluates associated evacuation planning measures. Because the Project site is not within any identified dam inundation zones, no associated conflicts would occur from Project implementation.

Based on the above discussions of emergency response and evacuation planning, **no significant impacts** related to Significance Guideline No. 8 would occur from implementation of the Proposed Project.

Analysis of Cumulative Impacts

As discussed above, the Proposed Project would result in **less than significant** impacts to the following: hazardous materials, fire hazards, vector and rodent control, airport safety and plans, and emergency response and evacuation plans. As with the Proposed Project, any future projects in the site vicinity, as noted in Tables 1-8 and 1-9 of this EIR and mapped on Figure 1-42, also would be required to implement, as appropriate, similar site-specific measures to address potential impacts related to hazards and hazardous materials. Based on these requirements, and the less than significant Project impacts identified in this section, the Proposed Project would **not contribute to any significant cumulative impacts** related to hazards and hazardous materials.

Mitigation Measures

Based on the significance thresholds and impact discussions provided in this section, no significant direct, indirect, or cumulative impacts related to hazards and hazardous materials were identified from implementation of the Proposed Project. Accordingly, no mitigation measures are required and none is proposed.

4.1.5 Utilities/Service Systems

Utilities/services systems include electric and natural gas, water, sewer, solid waste, and communications services. As described in Subchapter 1.1 of this EIR, all utilities would be underground within roadway rights-of-way. Utility and service providers for the Proposed Project are as follows:

Electricity and Natural Gas: SDG&E
Water Supply: RMWD
Sewers/Wastewater Treatment: RMWD under Wastewater Management Option 1 (Off-site Sewer Connection), or a public agency under Option 2 (WRF)
Solid Waste: Ramona Disposal
Communications (infrastructure and services): SBC
Communications (services): Cox Communications

Guidelines for the Determination of Significance

A significant impact to utilities would occur if:

1. The service provider indicates that it would be unable to serve the Project with its current staffing and/or infrastructure and no future funding sources are in place.
2. The Project requires or results in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts.
3. Sufficient water supplies are not available to serve the Project from existing entitlements and resources.

4. The wastewater treatment provider that would serve the Project determines that it does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.
5. Levels of service would fall below those defined in the applicable planning documents.

Guideline Sources/Methodology

The identified guidelines are based on the Appendix G of the State CEQA Guidelines and County of San Diego's General Plan Public Facility Element and are intended to ensure that adequate utilities/service systems and services are available for local and regional residents.

Analysis of Project Effects and Determination of Significant Impacts

The utility/service system providers that would serve the Proposed Project have indicated that they have or plan to have adequate services available to serve the Proposed Project at the time of Project construction (see Appendix O). Existing regulations require coordination with the responsible agencies for the various existing utilities located within the off-site roadways to be improved by the Proposed Project. Existing utilities and fire hydrants would be avoided or relocated in consultation with the responsible utility/public service purveyors.

Electricity and Natural Gas

No natural gas service is provided in the Ramona area and therefore homes are either all electric or rely partially on propane stored in tanks on each property. A single-family home has a peak demand of approximately 10 kilowatts (kW) per day with the use of propane versus 15 kW per day without the use of propane. Thus, the maximum potential demand to serve the proposed 417 homes on site simultaneously, without the use of propane, would be approximately 6,255 kW per day. This increase in demand would not require the installation of additional regional infrastructure such as electrical substations, although some existing conduits may have to be replaced to accommodate larger energy loads (Kindig, pers. comm.). These existing conduits are within existing roadway rights-of-way and their replacement would **not result in significant impacts**. Existing electrical lines are available along nearby roadways, from which service can be extended to the SPA. As for electrical supply, SDG&E would purchase sufficient power to meet the demand of the Proposed Project. It can be assumed that free market forces would provide additional power supply concurrent with increased demand. For these same reasons, the power supplier and location cannot be determined and associated impacts cannot be analyzed; however, **no significant impact** on electric utilities is anticipated, pursuant to Significance Guideline No. 1.

Water

Although the whole of the Project site would require annexation into the RMWD for water service, this would **not constitute a significant impact**. No additional or expanded RMWD facilities would be required to serve the Project, beyond the facilities proposed as part of the Project, pursuant to Significance Guideline Nos. 1 and 2, and **no significant impacts** would occur. Moreover, future RMWD facilities identified within the RMWD Water and Sewer Facilities Master plans take the development of the Montecito Ranch SPA into consideration, pursuant to Significance Guideline No. 5 (RMWD 1998a and b), and **no significant impacts** would occur.

A Water Supply Assessment and Verification Report was prepared for the Proposed Project by RMWD (2005; see Appendix C of EIR Appendix O). RMWD's current water supply is 10,700 acre-feet (a.f.) per year (RMWD 2005). Water demand for 2005 was estimated to be approximately 7,300 a.f. (RMWD 2005). RMWD's primary source of water (97 percent) is from the San Diego County Water Authority (SDCWA), which in turn gets the majority of its water from the Metropolitan Water District of Southern California. The remaining water supplied by RMWD is provided by Lake Sutherland, which is owned by the City of San Diego, and local groundwater wells. Water from Lake Sutherland is treated at the Bargar Water Treatment Plant and stored in the 2.0 million gallon Bargar Reservoir. Both the Bargar Water Treatment Plant and Reservoir are located approximately three miles northeast of the Project site. RMWD also owns three wells that provide water from the local aquifer. Untreated water stored in Lake Ramona is currently used by agricultural customers in RMWD's service area. Future RMWD plans include a micro-membrane treatment plant to treat water from Lake Ramona for distribution via the potable water system. SDCWA has developed plans and is implementing projects and programs to ensure that existing and planned water users within RMWD's service area have an adequate water supply, as discussed below.

SDCWA's Final Draft 2005 Urban Water Management Plan (2005) identifies proposed water resources to be developed over the next 25 years to ensure long-term water supply reliability for the San Diego region. In 1998, SDCWA signed an agreement with the Imperial Irrigation District for the long-term transfer of conserved Colorado River water to San Diego County. Under the agreement, Colorado River water is conserved by Imperial Valley farmers who voluntarily participate in the program. The conserved water is transferred to SDCWA for use in San Diego County. In 2005, SDCWA received 30,000 a.f. of water from this agreement. SDCWA is actively pursuing water supplies from other resources to serve the region's needs through 2030. SDCWA was assigned Metropolitan's rights to conserve water from projects that will line the All-American Canal and Coachella Canal. The projects, if approved and implemented, will reduce the loss of water that currently occurs through seepage, delivering an additional 8.5 million a.f. of water to SDCWA and the San Diego region over the 110-year life of the agreement. The Final Environmental Impact Report for the SDCWA's Twin Oaks Valley WTP was certified in September 2005 and construction was completed in early 2008. This WTP is the first for SDCWA and will treat 100 million gpd of drinking water.

SDCWA's current seawater desalination efforts focus on three main areas within San Diego County: (1) Encina Power Station in the City of Carlsbad, (2) San Onofre Generating Station in the northern portion of San Diego County on Marine Corps Base Camp Pendleton, (3) and the South Bay/South County area. The proposed regional seawater desalination project at the Encina Power Station includes a 50-million gallon per day seawater desalination facility. The Final Environmental Impact Report for the Encina Desalination Project was certified in June 2006. The facility is expected to be operational by 2011. SDCWA is currently focusing its efforts on implementing the 50-million gallon per day seawater desalination project at the Encina Power Station, but will continue to evaluate opportunities at San Onofre and South County as well. The goal for SDCWA's Seawater Desalination Program is to generate up to 89,600 a.f. of potable water per year by 2020.

By 2030, deliveries of water from the above-mentioned projects and agreements will provide an estimated supply of 333,700 a.f. of potable water per year in addition to water purchased from Metropolitan. SDCWA therefore anticipates that sufficient water supplies will be available through 2030.

As stated in Subchapter 1.1, Project Description and Location, potable water would be supplied to the site via off-site connections to existing pipelines within Montecito Road and Pine Street. Proposed connections to the existing water lines would form a loop system through the development that would provide two water lines to the Proposed Project, as requested by RMWD (see May 7, 2004 letter in Appendix A in EIR Appendix O). Considering that the average household consumes approximately 416 gallons of water per day (Dexter Wilson, Inc. 2007c), demand would be approximately 173,472 gpd for the proposed 417 residences. The proposed charter high school site and historic park site would require 11,080 gpd and Project landscaping, including the local park site, would require up to approximately 110,000 gpd, for a total of approximately 294,552 gpd of potable water required for the Montecito Ranch development. Under Wastewater Management Option 2, up to 110,000 gpd of reclaimed water generated on site would be used to irrigate public/institutional landscaped areas (refer to Subchapter 1.1, Project Description and Location, for additional information regarding the on-site WRF and reclaimed water use). Therefore, if Option 2 is implemented, the Project would require approximately 110,000 gpd less potable water, because reclaimed water would be used to irrigate landscaped areas on site, including manufactured slopes, streetscapes, parks, and future school landscaping. According to the RMWD Water Facilities Master Plan, the water demand described here would be within that anticipated and planned by RMWD and would not require the installation of additional facilities beyond those planned in the RMWD Water Master Plan, pursuant to Significance Guideline Nos. 1, 2, 3, and 5. Therefore, impacts on water service are anticipated to be **less than significant**.

Water reservoir storage requirements for the Proposed Project include operational, fire, emergency and District-wide storage, for a total of 1.26 million gallons under Wastewater Management Option 1 and 0.91 million gallons under Option 2 (Dexter Wilson 2007c). The required elevation for a reservoir to serve the Project is approximately 1,790 feet AMSL (assuming a 30-foot deep reservoir) with a high water line of 1,820 feet AMSL. The Project site does not have sufficient elevation within its boundaries for a Bargar-Woodson Pressure Zone reservoir. An off-site water storage tank to accommodate required storage would be installed just west of the Project site on an adjacent property. A pipeline would connect the water storage tank to the proposed pipeline within Montecito Way. Therefore, impacts on water storage are anticipated to be **less than significant**, pursuant to Significance Guidelines 1, 2, and 3.

Wastewater Management

The Proposed Project is anticipated to generate an average of 108,310 gpd of wastewater under Wastewater Management Option 1 and 109,510 gpd under Option 2 (Dexter Wilson 2008). Option 2 would generate more wastewater because the operation of the WRF also would generate wastewater (refer to the Sewer Service Design Report in Appendix F of EIR Appendix O).

Under Option 1, wastewater management for the Project would be provided by RMWD and off-site sewer improvements would be required. The Project site is located beyond RMWD's existing sewer service boundaries and sphere of influence, and would require annexation into the RMWD. Wastewater would be transported via pipelines to the Santa Maria WTP, where the wastewater from the Montecito Ranch development would be treated, if capacity becomes available at the WTP. Footprint impacts associated with these pipelines are addressed as appropriate throughout this EIR, including Chapters 2.0, 3.0, and 4.0. In general, however, the location of these proposed pipelines within previously disturbed roadbeds results in very little new disturbance being associated with them. The Sewer Facilities Master Plan (RMWD 1998b) identifies the need for increasing sewage treatment

and disposal capacities to accommodate future growth within RMWD's service area and provides a phased expansion schedule that would double the district's sewage treatment and disposal capacity by 2015. RMWD has indicated that facilities to serve the Project would be available within five years from Project funding if the Project Applicant contributes monies for facilities required by the Project, including administrative, design, and construction costs, as well as the cost of a percentage of the value of existing facilities (see letter from RMWD dated February 17, 2004 in Appendix O). Based on the annexation requirements, the five-year timeframe to serve the Project, and the substantial cost associated with required facilities, Option 1 may not be feasible; in this event, Option 2, described below, would be implemented.

In the event that Option 1 cannot be implemented, a second option is under consideration. Under Wastewater Management Option 2, all wastewater would flow toward the southwestern corner of the Project site where it would be treated by the proposed on-site WRF. The Project would provide for all wastewater collection and treatment within the Project design and no other new or expanded off-site wastewater treatment facilities would be required to serve the Project. If directed by the Board of Supervisors, the WRF would be owned and operated by a public agency.

Since one of these two options would be implemented upon Project approval, impacts to wastewater management are identified as **less than significant**, pursuant to Significance Guideline Nos. 1, 2, and 4.

Solid Waste

Refuse is collected at each home and taken to the Ramona Transfer Station, where it is sorted and then trucked to landfills and recycling facilities throughout southern California. The addition of 417 residences and other facilities would require the extension of services that would be funded through solid waste fees charged to customers on this route (see Appendix O). No expanded facilities would be necessary, pursuant to Significance Guideline No. 1 (Tobiason, pers. comm.). Moreover, the capacity of the Ramona Transfer Station was expanded from 370 tons to 700 tons of refuse per day in 2005 (Snyder, pers. comm.). Therefore, impacts to solid waste services are anticipated to be **less than significant**.

Communications

Infrastructure to serve future customers would require the installation of communications conduits within roadway rights-of-way. SBC or Cox Communications would provide communication services such as telephone, cable, and internet. Both providers have indicated the ability to meet future demand, pursuant to Significance Guideline No. 1 (Mellinger and Greenwood, pers. comm.). Therefore, impacts to communication services are anticipated to be **less than significant**.

Analysis of Cumulative Impacts

In addition to the Proposed Project, a number of other residential projects are currently under environmental review as listed in Table 1-8. These future projects are primarily single- and multi-family residential developments totaling 1,026 units, as well as other projects such as youth camp facilities and public works projects. All of these related projects either have not completed environmental documents or have found utilities/service system impacts to be **less than significant**.

Electricity and Natural Gas

As previously stated, there is no natural gas service in the Ramona area. SDG&E has indicated that if all of the related projects listed in Tables 1-8 and 1-9 are constructed and assuming that a single-family home has a peak demand of 10 kW at any one time with the use of propane and 15 kW without the use of propane, then approximately 23,000 kW would be demanded over existing peak levels to serve the Proposed Project plus 1,026 residences. This increase in demand would not require the installation of additional infrastructure such as electrical substations (Kindig, pers. comm.). As for electrical supply, SDG&E would purchase sufficient power to meet the demand of these projects provided that free market forces would provide additional power supply concurrent with increased demand. Therefore, cumulative impacts on electric utilities within the Ramona community are anticipated to be **less than significant**.

Water

Based on the average household consumption of approximately 416 gpd, the future cumulative increase in demand (including the Proposed Project) would be in excess of 630,000 gpd. According to the RMWD Water Facilities Master Plan, the cumulative growth and associated water demand described here would be within that anticipated by RMWD. Expanded facilities and water supply would be available to serve these projects and would not necessarily require the installation of additional facilities beyond those planned in the RMWD Master Plan. Therefore, cumulative impacts to water utilities are anticipated to be **less than significant**.

Wastewater Management

As stated above, wastewater treatment would be provided by the Santa Maria WTP under Wastewater Management Option 1. The Santa Maria WTP has a current capacity of one million gpd and is operating at this capacity, based on existing and approved development. Based on an average of 240 gpd per household, the total cumulative residential sewage generation (including the Proposed Project) would be approximately 364,000 gpd over current levels. This would further increase sewage treatment demand over the maximum service capacity of the Santa Maria WTP. In addition, as indicated in Table 1-5, the Ramona Airport is connecting to the RMWD sewer services, adding an unknown volume of wastewater to the collection and treatment system. However, the RMWD Sewer Facilities Master Plan takes into consideration expanded growth and wastewater treatment demand. The master plan requires expansion of the Santa Maria WTP to handle 1.7 million gpd by 2015. This planned capacity would be sufficient to serve all of the cumulative projects, including the Proposed Project. In addition, RMWD has indicated that sewer facilities to accommodate the Proposed Project would become available within five years of initial funding. The Proposed Project and each cumulative development project within the Santa Maria WTP service area would be required to pay a fair share of the required expansion cost. Therefore, the cumulative impacts of these future projects on sewer and wastewater treatment services would be **less than significant**.

Under Wastewater Management Option 2, the on-site WRF would accommodate only the wastewater generated by the Proposed Project and would not include the processing equipment or capacity to treat effluent from cumulative projects. The Proposed Project would not contribute to existing constrained conditions with regard to wastewater treatment in Ramona. As such, cumulative impacts to sewer systems are identified as **less than significant** under this option.

Solid Waste

As stated above, refuse is collected at the Ramona Transfer Station where it is sorted and then transported to landfills throughout southern California. As such, Ramona Disposal would have sufficient resources to serve the Proposed Project. The addition of 1,026 residences and other facilities, plus the Proposed Project, would require the extension of services that would entail additional truck routes that would be funded through solid waste fees charged to customers on this route. No expanded facilities would be necessary. Moreover, the capacity of the Ramona Transfer Station was expanded from 370 to 700 tons of refuse per day in 2005. Therefore, cumulative impacts are anticipated to be **less than significant**.

Communications

Infrastructure to serve future customers would require the installation of conduits within roadway rights-of-way. Fees for expanded facilities and services would be collected from the developer as well as the consumer. SBC or Cox Communications would provide communication services such as telephone, cable, and internet. Both providers have indicated the ability to meet future demand. Cumulative impacts to communication services are anticipated to be **less than significant**.

Mitigation Measures

Based on the significance thresholds and impact discussions provided in this section, no significant direct, indirect, or cumulative impacts related to utilities/service system were identified from implementation of the Proposed Project. Accordingly, no mitigation measures are required and none is proposed.

4.1.6 Population and Housing/Growth

This section addressed the issue of displacement of people, housing, and businesses. The issue of inducement of population/housing growth is addressed in Subchapter 1.7, with analyses of the environmental effects of such growth addressed separately for each environmental issue, within Chapters 2.0 and 3.0.

The historic Montecito Ranch House is the only existing dwelling unit within the Montecito Ranch SPA. This house is currently unoccupied. Existing homes and businesses are located along the proposed off-site road alignments and intersection improvement areas as well.

Guidelines for the Determination of Significance

A significant impact to utilities would occur if the Proposed Project would:

1. Displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere.

Guideline Sources/Methodology

The identified guideline is based on the Appendix G of the State CEQA Guidelines and is intended protect existing housing and residents.

Analysis of Project Effects and Determination of Significant Impacts

The SPA contains large areas of undeveloped land, including former agricultural land. The uninhabited historic Montecito Ranch House is the only existing housing located within the SPA, and would be preserved by the Proposed Project within a proposed historic park site. No currently inhabitable housing would be displaced as a result of the Proposed Project, pursuant to Significance Guideline No. 1, and **no impacts** would occur. The proposed development of 417 dwelling units would increase the housing stock in the County of San Diego, which is currently experiencing a housing shortage.

Existing homes are located along the proposed off-site road alignments to be improved by the Project, including segments of Ash Street, Montecito Way, and Montecito Road proposed to be widened. In addition, there are homes and businesses adjacent to the proposed off-site intersection improvement areas. As discussed in more detail in Subchapter 3.1, Land Use and Planning, none of the existing homes, residents, and businesses adjacent to the proposed off-site road and intersection improvements would be displaced by the Project. Proposed right-of-way takes would not impact existing structures or render existing residential or business properties unusable. The Proposed Project would not result in a significant displacement of existing houses or residents, pursuant to Significance Guideline No. 1; therefore, impacts would be **less than significant**.

Analysis of Cumulative Impacts

The Proposed Project would not displace housing, residents, or businesses and therefore would not contribute to any cumulative impacts with respect to this issue.

Mitigation Measures

Based on the significance thresholds and impact discussion provided in this section, no significant direct, indirect, or cumulative impacts were identified with respect to displacement of existing homes, residents, or businesses. Accordingly, no mitigation measures are required and none are proposed.

4.1.7 Paleontological Resources

Guidelines for the Determination of Significance

The Proposed Project would result in significant impacts related to paleontological resources if the following threshold is exceeded:

1. The Project would directly or indirectly destroy a unique paleontological resource.

Guidelines Sources

The identified significance threshold is based on criteria provided in Appendix G of the State CEQA Guidelines.

Analysis of Project Effects and Determination of Significant Impacts

The Proposed Project is not located on geologic formations that contain significant paleontological resources, as indicated by geologic mapping of the Project site (Appendix L) and a review of associated paleontological resource potential (Deméré and Walsh 1994). Specifically, the geologic formations that underlie the Project site and off-site facility areas consist of igneous and/or metamorphic units, which exhibit no or low probability of containing significant paleontological resources. This conclusion is based on the fact that igneous rocks are formed from molten material (with no potential for fossil occurrences), while metamorphic units are typically exposed to variable degrees of alteration through heat and pressure that tend to destroy or substantially degrade any associated paleontological resources. Based on the described geologic conditions, **no direct or indirect impacts** to paleontological resources would occur from implementation of the Proposed Project, pursuant to Significance Guideline No. 1.

Analysis of Cumulative Impacts

Because no direct or indirect impacts to paleontological resources were identified from implementation of the Proposed Project, **no associated cumulative impacts** would occur.

Mitigation Measures

Based on the significance thresholds and impact discussions provided in this section, no significant direct, indirect, or cumulative paleontological resource impacts were identified from implementation of the Proposed Project. Accordingly, no mitigation measures are required and none is proposed.

4.1.8 Public Services

The CEQA Initial Study for the Proposed Project (Appendix A), required additional analysis of the following public services: fire protection, police protection, schools, and parks. The following entities provide public services to the community of Ramona and would provide services within the Project site: RFD/CDF, San Pasqual Fire Department, San Diego County Sheriff's Department, California Highway Patrol (CHP), and Ramona Unified School District (RUSD), and County Parks and Recreation Department. A public services analysis was prepared by HELIX (2008a) and is included in Appendix O. In addition, a Fire Protection Plan was prepared by RC Biological Consulting, Inc. (2008) and is included as Appendix P.

Guidelines for the Determination of Significance

A significant impact to public services would occur if the Project:

1. Results in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, or other public facilities.

2. Provides less than 4.7 acres of parkland (3 acres per 1,000 population) as required by the County's Parklands Dedication Ordinance.

3. Results in less than 30 acres of total parkland per 1,000 residents, including 15 acres of local parkland, and 15 acres of regional parkland, per standards set forth by the Recreation Element of the General Plan.

4. Is inconsistent with the County's trail plan for the area.

Guideline Sources/Methodology

The identified guidelines are based on Appendix G of the State CEQA Guidelines, County General Plan, County Parkland Dedication Ordinance, and National Recreation and Park Association Standards, and are intended to ensure that adequate public services opportunities are available for local and regional residents. Information regarding availability and adequacy of public services and utilities to serve the Project was obtained from service providers (see letters and forms in Appendix A of EIR Appendix O).

Analysis of Project Effects and Determination of Significant Impacts

Fire Protection

As stated above, a Fire Protection Plan was prepared for the Proposed Project (RC Biological Consulting, Inc. [2008]; Appendix P). A fuel modification zone is identified on the Project plans (Figure 1-35), surrounding the proposed residential development pads, and the charter high school and park sites. The fuel modification zones generally would be 100 to 150 feet wide, depending on adjacency to high fuel threat vegetation. Some exceptions are proposed where proposed lots would abut off-site development of low-fire danger habitat. Lots 3 through 17 would have minimum fuel management zones of 30 to 50 feet wide. A reduction from the minimum of 100 feet of fire clearing is allowed within the Consolidated Fire Code at the discretion of the RMWD. Lots 3, 4, and 14 through 17 abut existing off-site, landscaped development; therefore, the fuel modification zone for these lots would only be 30 feet wide. This distance would be acceptable due to the minimal threat posed by the adjacent developed lands. Lots 5 through 13 abut open space lot 248, which is approximately 2.8 acres and includes a County RPO wetland and wetland buffer. The fuel management zone would be 50 feet wide in this area. This width should be adequate, because this open space lot is small and composed of low fuel threat vegetation (i.e., riparian scrub and non-native grasslands).

Fire protection within much of Ramona is provided by RFD/CDF. RFD was consolidated into RMWD in 1981, and RFD entered into a contract with CDF to provide fire protection/paramedic services conjointly in 1993. RFD/CDF service boundaries correspond with RMWD boundaries, serving approximately 75 square miles. RFD/CDF currently operate three fire stations (Station Nos. 80, 81, and 82) in the Ramona area, which provide fire protection services 24 hours a day, 365 days a year. Regions within Ramona that are not included in the RFD/CDF service boundary are protected by other agencies and fire districts including CDF, U.S. Forest Service (USFS), and San Pasqual Fire Department. CDF and USFS primarily handle wildland fires and jointly operate an air attack base at the Ramona Airport.

The majority of the Project site is located within the RFD/CDF service area, with the exception of an approximately seven-acre parcel along the northwestern site boundary (APN 280-010-08-00), which is located within the San Pasqual Fire District.

RFD/CDF Station No. 80 would serve the Project site, with the exception of Parcel 280-010-08-00. Station No. 80 is located approximately three miles from the SPA site at 829 San Vicente Road. The station's fire protection rating is Class 4 as assigned by the Insurance Services Office. The station is currently equipped with one fire engine, one medical unit, and one rescue apparatus. In addition, five firefighters/paramedics are on duty at any one time at this station. Station No. 80 is equipped to respond to structural fires and has a response time of 10 minutes or less.

Parcel 280-010-08-00 within the Project site is served by the San Pasqual Volunteer Fire Department Station No. 93, which is approximately 10 miles from the SPA at 17701 San Pasqual Valley Road. Station No. 93 is currently equipped with one fire engine. The response time is unknown based on the fact that this is a volunteer fire station and no firefighters are on duty, but are called upon during emergency situations.

Grasslands (which include proposed open space within the Project site) are considered "State Responsibility Areas" and CDF has primary fire-fighting responsibility for grassland and brush fires in these areas. The RFD, San Pasqual Fire Department, CDF, and USFS have a mutual agreement to assist each other in fighting fires. CDF and USFS have bases and aircraft for fighting brush fires at the Ramona Airport, located approximately 0.5 mile south of the SPA.

The Proposed Project would require fire protection and paramedic services for 417 detached residential homes, an 8.3-acre local park, an 11.9-acre historic park site, a 10.6-acre charter high school site, a 0.9-acre WRF (under Wastewater Management Option 2), and 549.1 or 573.8 acres of open space, depending on whether the WRF is constructed. The required response time for residential lots smaller than two acres in size, per Section 11 of the Public Facility Element of the General Plan, is 5.0 minutes or less. Station No. 80 has "first in" responsibility for the Project site. According to GIS mapping and calculations done for this analysis, the anticipated travel time from Station No. 80 to the furthest house within the Project site would be approximately five minutes. This response time is based on the assumption that a fire vehicle would travel 45 mph along the route segments of San Vicente Road/10th Street, Pine Street, and Montecito Ranch Road and 30 mph along proposed Streets "A" and "C" (refer to Figure 4-2). Although an acceptable response time is anticipated from Station No. 80 to the proposed residences, RFD/CDF has indicated that Station No. 80 is overloaded and an additional fire station is needed to maintain acceptable response times with the addition of the Project residences and charter high school site. It is anticipated that expanded fire protection services primarily would be funded from increased property taxes and other revenues to the County resulting from the Proposed Project as well as from other cumulative developments in the Ramona area that have contributed or would contribute to the increased demands on fire protection services. Furthermore, the existing Fire Station No. 82, located at 3410 Dye Road, could also dispatch fire response units to the site via Montecito Road. Station No. 82 is not equipped with a paramedic unit. Because the fire response time is within the five-minute threshold, impacts with regard to RFD/CDF fire protection services would be **less than significant**, pursuant to Significance Guideline No. 1.

A Fire Protection Plan has been prepared for the Proposed Project and is included as Appendix P (RC Biological Consulting, Inc. 2008). A fuel modification zone would surround the proposed residential development pads, and the charter high school and park sites (Figures 1-7 through 1-10 and 1-34). The fuel modification zones would generally be 100 to 150 feet wide, depending on adjacency to high fuel threat vegetation. Some exceptions are proposed, as discussed in Section 1.1.2 under "Landscape Concept Plan." In addition, 10-foot-wide fuel modification zones, pursuant to the Consolidated Fire Code, would be provided on either side of roadways. The proposed WRF under

Wastewater Management Option 2 would not require fire clearing due to the location and size of the proposed storage ponds adjacent to open space. Additionally, no combustible structures greater than 250 s.f. would be located on the WRF site.

Parcel 280-010-08-00 is within the service area of the San Pasqual Volunteer Fire Department Station No. 93 located approximately 10 miles from the Project site. As stated above, the response time is unknown based on the fact that this is a volunteer fire station, and no firefighters are on duty, but they are called upon during emergency situations. Parcel 280-010-08-00 would not be developed under the Proposed Project, but would be dedicated as open space. Conditions at this parcel would not change as a result of the Project, and **no significant impact** to the San Pasqual Volunteer Fire Department would occur, pursuant to Significance Guideline No. 1.

Police Protection

The County Sheriff's Department provides law enforcement services in the Project vicinity with additional traffic law enforcement services provided by the CHP. Both the Sheriff's Department and CHP have indicated that law enforcement services are currently strained by development in the Ramona area.

The Sheriff's Department Ramona Substation is located at 1424 Montecito Road, approximately 2.5 miles from the Project site. The Ramona Substation has indicated that it is in the process of acquiring a parcel to construct a larger station within approximately three to five years (see September 20, 2006 letter in Appendix A of EIR Appendix O). Plans currently are in the preliminary phase. No building plans have been created and no land has been purchased at this time. The Ramona Substation is authorized to have 17 patrol deputies, but currently has only 13 due to personnel shortages throughout the department (refer to Appendix O). At any given time, two to four deputies may be on duty at this substation. Deputies at the Ramona Substation have law enforcement responsibility for approximately 155 square miles. This area is bounded by Poway and unincorporated Escondido to the west, Valley Center and Mesa Grande to the north, Julian to the east, and Lakeside to the south.

The CHP El Cajon Substation is located at 1722 East Main Street in El Cajon, approximately 22 miles from the Project site. CHP officers assigned to the Ramona Residents Post patrol the Ramona Community.

Adequate response times to the Project site by the Sheriff's Department cannot be guaranteed to fall within the 8-minute (for priority calls) or 16-minute (for non-priority calls) time frame designated by the Public Facility Element of the General Plan, due to current understaffing and under-equipped department facilities. The Sheriff's Department has indicated that future response times to the Proposed Project cannot be accurately estimated, as they depend on such factors as type of call, call priority, previous calls pending, time of day, and amount of traffic; however, the response times for priority calls within the Ramona Substation are generally less than the 16-minute significance threshold. In 2004, the average response times for priority and non-priority calls were 12.9 and 39.4 minutes, respectively, and in 2005, the response times were 13.2 and 14.6 minutes, respectively (refer to Appendix O).

It is anticipated that expanded police protection staff and services would be funded over time, as required to serve the community of Ramona, from increased property taxes and other revenues to the

County resulting from the Proposed Project as well as from other cumulative developments in the Ramona area that have contributed or will contribute to the increased demands on police protection services.

The CHP has recommended that Main Street (SR 67) and Pine Street (SR 78) be improved with additional lanes and the intersection of Pine Street (SR 78)/Ash Street be signalized to help alleviate congestion anticipated to occur with the additional traffic associated with the Proposed Project. As discussed in Subchapter 1.2, Project Description, the Project would create an alternative route between Pine Street and Main Street (SR 67) to bypass downtown Ramona via a widened Ash Street, newly constructed Montecito Ranch Road, and widened Montecito Way and Montecito Road, helping to alleviate traffic on portions of Main Street and Pine Street. In addition, the Proposed Project would include the signalization of Pine Street/Ash Street and improvements to Main Street/Pine Street, Montecito Road/Main Street, SR 67/Highland Valley Road/Dye Road, and SR 67/Archie Moore Road. These roadway improvements would improve traffic conditions within Ramona and provide an alternate emergency response route, with potential associated improvements to emergency police response capability.

Based on the preceding analysis and pursuant to Significance Guideline No. 1, impacts assessed with respect to police protection would be **less than significant**.

Schools

The Project site is located within the boundaries of RUSD, which serves approximately 150 square miles. During the 2005/2006 academic year, approximately 7,031 students attended schools within RUSD. The school district is comprised of five elementary schools, one junior high school, one kindergarten through 12th grade community school, one senior high school, and one alternative high school. The schools that would likely serve the Project area include Mount Woodson Elementary School, Olive Peirce Middle School, and Ramona High School. Olive Peirce Middle School and Ramona High School have been operating near capacity. Mount Woodson Elementary School was operating above capacity between 2003/2004 and 2005/2006, but has available capacity in the 2006/2007 school year. RUSD has indicated that schools are currently overcrowded (refer to Appendix O). The number of students enrolled at all three schools, however, has decreased annually since 2003/2004. Classroom and other facility additions have been made to Olive Peirce Middle School and Ramona High School over the past several years, as needed to accommodate student populations and meet technology needs, in accordance with District-wide facilities plans.

The Proposed Project would generate approximately 590 school age children, including 244 elementary school students, 112 junior high school students, and 234 high school students. Based on estimated remaining capacity, the addition of Project-generated students would cause Mount Woodson Elementary School and Ramona High School to operate above capacity and Olive Peirce Middle School to operate near capacity. RUSD has indicated that the addition of Project-generated students to the district would result in overcrowding of the schools (refer to Appendix O). As noted above, however, the total student enrollment of these schools, however, has generally been decreasing. RUSD has indicated that they would serve the Project. The addition of Project-related student generation would occur over a period of one to five years and currently would be expected to start in 2013. Student enrollment within the RUSD fluctuates depending on the demographics of the area. RUSD typically accommodates fluctuating enrollments through the use of portable classrooms and boundary adjustments for school service areas.

The Project Applicant would pay development impact fees to the school district, which are intended to reflect a fair share contribution toward school improvements needed to serve cumulative development. Therefore, the Proposed Project is not anticipated to have a significant impact on school services. Although not required, the Proposed Project would dedicate a 10.6-acre charter high school site in the southwestern portion of the Project site for future construction of an approximately 600-student charter high school by the RUSD or other appropriate entity. The RUSD has tentatively indicated that the charter high school site is acceptable. Once the charter high school is constructed, students from the Proposed Project and surrounding areas could attend the new school.

The County has a School Facilities Mitigation Ordinance (7966), which requires mitigation of school facilities impacts prior to legislative action on a project such as the Proposed Project. The Ordinance requires execution of a binding agreement between an applicant and the affected school district prior to legislative approvals associated with a proposed project. Such an agreement can consist of a statement by the affected district that fees routinely assessed at the building permit stage are sufficient to mitigate impacts, and that no agreement is necessary. The Project would be required to execute an agreement between the Project Applicant and RUSD in order to set forth the methodology for providing school services to students generated by the Project. This agreement would ensure that school services and adequate facilities would be available concurrent with the number of students generated by the Project, pursuant to Significance Guideline No. 1, and impacts would be **less than significant**.

Parks and Recreation

Parklands

The County currently owns and operates one local park, two community parks, one regional park, and four open space preserves in the Ramona Community Planning area that are open to the public. These include the 8-acre Collier Park, 153-acre Ramona Community Park, 41-acre Holly Oaks Ranch Park, 78-acre Dos Picos County Park, 90-acre Luelf Pond Open Space Preserve, 1,574-acre Mt. Gower Open Space Preserve, and 619-acre William and Carole Simon Open Space Preserve. These open space preserves provide recreational opportunities for the residents of Ramona, as well as other County residents. The recently established Ramona Grasslands and Santa Maria Creek Open Space Preserve is not yet open to the public. A partnership of the County, The Nature Conservancy, and Wildlife Research Institute is currently involved in a protection and restoration project for this preserve (County 2006). In cooperation with the community of Ramona and neighbors of the preserve, this partnership is working to enhance the health of the preserve and make it available to the public. The Ramona Community Park (also known as the Ramona Wellfield Community Park) was developed by the County in conjunction with RMWD. The County also has developed recreational facilities at a number of school sites in conjunction with RUSD. The Cleveland National Forest surrounds the Project site and Ramona, and is located approximately one mile north, nine miles east, and seven miles southwest of the Project site.

According to SANDAG's Population and Housing Estimates, the 2006 population within the Ramona Community Planning area was approximately 36,400 people. The standards set forth in the Recreation Element of the County General Plan require of a minimum of 30 acres of parkland per 1,000 people, of which half should be devoted to regional facilities and half for local parklands (including neighborhood and community parks and hiking and riding trails). Based on these

standards, the community of Ramona should have approximately 1,100 acres of parkland, including a minimum 550 acres of local/community parkland and 550 acres of regional parkland.

Ramona currently has approximately 202 acres of local/community parkland, which is less than required to meet the General Plan goal of 15 acres per 1,000 residents (i.e., 550 acres for the community of Ramona). The community is served by the 78-acre Dos Picos County Park, which is a regional facility. There are also 2,200 acres of open space preserve land available for public use within the community that meet the requirements of regional parks, as defined in the Recreation Element of the General Plan. According to the General Plan, regional parks serve the entire County and are usually at least 200 acres. Some regional parks are left primarily in their natural state, while others have both natural areas and extensive development. Based on the inclusion of open space preserve areas with trails and other passive uses, Ramona would meet the required minimum of 550 acres of regional parkland to serve its current population. The community, however, requires additional local parkland to meet the above standards.

General Condition 9 within the Montecito Ranch SPA Section of the Ramona Community Plan states, "A site of approximately 30 acres shall be dedicated to the County of San Diego as a site for a future neighborhood park subject to the approval of appropriate agencies if the density of the Davis SPA (0.16) is not increased." The intent of this condition was to dedicate 30 acres of land for future parkland to serve future development within the Montecito SPA and the Davis SPA. It should be noted, however, that the Davis SPA was purchased by The Nature Conservancy for preservation in December 2005 and will not be developed. Therefore, the recreational amenities within Montecito Ranch are no longer required to also accommodate future development within Davis SPA.

The Proposed Project would dedicate and fully develop an 8.3-acre local park and an 11.9-acre historic park (including the Montecito Ranch House) in the southwestern portion of the SPA on the west side of Montecito Ranch Road. In addition to parklands, the Proposed Project would include the dedication of 573.8 acres of open space under Wastewater Management Option 1 or 549.1 acres of open space under Option 2 that would include approximately 3.8 miles of developed trails for hiking, horseback riding, and bicycling opportunities. Approximately 5.1 miles of multi-purpose trails and bike lanes also would be provided along the proposed Montecito Ranch Road, as well as existing segments of Ash Street, Montecito Way, and Montecito Road proposed for improvement. An additional 1.7 acres of trails would be provided within residential lots. The above-described recreational areas/opportunities are proposed in lieu of dedicating 30 acres of parkland that would need to be developed by the County, as currently required by the RCP. The County Department of Parks and Recreation has accepted the proposed on-site recreational amenities as adequate to satisfy the recreational requirements for the Proposed Project (see June 8, 2006 letter in Appendix A of Appendix O to this EIR), based on the provision of developed parkland in place of a larger block of undeveloped parkland. The Project Applicant would work with County staff to develop an agreement regarding the appropriate improvements to be made to the local park. To address the Project's inconsistency with General Condition 9, the Project Applicant has filed a GPA to the RCP to change the requirement for a 30-acre neighborhood park to the dedication of and dedication and development of an 8.3-acre local park site, an 11.9-acre historic park (including the Montecito Ranch House), and 7.8 miles of trails. With the approval of the RCP amendment, impacts would be **less than significant**, pursuant to Significance Guideline No. 1.

The proposed local park and historic park site would total 20.2 acres, which would comply with the County's Parkland Dedication Ordinance of 3 acres of parkland per 1,000 people by providing more

than the required 4.7 acres, pursuant to Significance Guideline No. 2, and impacts would be **less than significant**.

To comply with the standards set forth in the Recreation Element of the General Plan (i.e., 15 acres of local parkland and 15 acres of regional parkland per 1,000 people), the Project would need to provide 39 acres of parkland, including a minimum of 19.5 acres each of local and regional parks. As noted above, the Project would include an 8.3-acre local park and an 11.9-acre historic park site, for a total of 20.2 acres of local parkland within Montecito Ranch. The Project would dedicate 573.8 acres of open space under Wastewater Management Option 1 or 549.1 acres of open space under Option 2 on site, including 3.8 acres of multi-purpose trails within the open space, thereby meeting the criterion for regional parks as described above. Accordingly, the Proposed Project would meet the General Plan parkland standards and associated impacts would be **less than significant**, pursuant to Significance Guideline No. 3.

Trails

The Specific Plan proposes a 7.8-mile long multi-purpose trail system within the Project site, designed to accommodate outdoor activities such as hiking, horseback riding, and bicycling. The proposed trail system includes multi-purpose community trails within proposed open space connecting to existing trails off site to the northwest, as well as a community pathway along proposed Montecito Ranch Road and the segment of Montecito Way within the Project site and community feeder trails throughout the proposed on-site residential development (Figure 1-35). The community trails would generally be 8 feet wide within an assumed minimum 12-foot-wide indirect impact area. The community pathways would be eight feet wide. The trail lengths would total approximately 3.8 miles within dedicated open space areas, 1.7 miles within residential lots, and 2.3 miles within on-site road rights-of-way. In addition, the Proposed Project would continue the eight-foot-wide community pathway off site along the segments of Ash Street, Montecito Way, and Montecito Road proposed for improvement. Trails would link to the County Regional Trail System. An information kiosk would be installed near the equestrian staging and overflow parking area in the proposed historic park site.

The Project proposes an amendment to the San Diego County Trails Master Plan (County 2005). Figure 1-36 shows the existing trails and pathways network as presented in the Ramona Community Trails and Pathways Plan within the San Diego County Trails Master Plan and Figure 1-37 shows the proposed trails and pathways network. Specific changes are discussed in Subchapter 1.1, Project Description and Location.

This amendment is necessary to ensure that the Trails Master Plan remains consistent with the General Plan Circulation Element, which is also proposed for amendment. The amended trails within the Project were designed to connect with the remainder of the trail system in the Trail Master Plan. Approval of the proposed amendment to the County's Trail Master Plan would render the Proposed Project consistent with that plan. Thus, the Project would have a **less than significant** impact on trails, pursuant to Significance Guideline No. 4.

Analysis of Cumulative Impacts

A number of additional residential projects are currently under environmental review, as listed in Table 1-8. These future projects are primarily single-family residential developments with a total of 1,026 dwelling units, as well as other projects such as youth camp facilities and public works projects.

All of these related projects either have not completed environmental documents or have found public services impacts to be less than significant, with the exception of the Rancho San Vicente project, which had significant mitigable impacts upon public services in the Ramona area (Table 1-10).

The following analysis of cumulative public services impacts assumes buildout of the Proposed Project (417 units) plus all 1,026 proposed homes associated with the related cumulative projects in Table 1-8, for a total of 1,443 new houses in Ramona.

Based on cumulative development (past, present, and future projects) plus the Proposed Project and future construction of the on-site charter high school, an additional fire station is needed to maintain acceptable response times. It is anticipated that expanded fire protection services would be funded from increased property taxes and other revenues to the County resulting from the Proposed Project, as well as from other cumulative developments in the Ramona area that have contributed or will contribute to the increased demands on fire protection services. Therefore, **no significant cumulative impact** is assessed for fire protection services.

The cumulative increase in population resulting from future residential development (future projects plus the Proposed Project) would be approximately 4,700 persons. This would necessitate the addition of at least four sworn officers and may also require the addition of other personnel, such as detectives, patrol deputies, supervisors, and clerical support staff, as well as additional patrol vehicles and facilities. It is anticipated that expanded police protection services would be funded from increased property taxes and other revenues to the County resulting from the Proposed Project, as well as from other cumulative developments in the Ramona area that have contributed or will contribute to the increased demands on police protection services. Therefore, **no significant cumulative impact** is assessed for police protection services.

Cumulatively, the future residential projects listed in Table 1-8 would generate approximately 640 elementary, 300 middle school and 620 high school age students. This would exceed the current capacity of area schools. As previously stated, school capacity and resulting school service levels (i.e., class sizes and school capacities) outlined in the RUSD Master Plan may be exceeded. The required payment of development impact fees to the RUSD would avoid significant impacts upon schools from the Proposed Project. Therefore, the Proposed Project would **not contribute to any significant adverse cumulative impact** upon schools in Ramona. Future developments also would be required to pay school fees and/or dedicate land for schools commensurate with their impact contribution. Although not required, the Project would dedicate a 10.6-acre charter high school site on the Project site. The charter high school site would be made available to the RUSD or other appropriate entity for the construction of an approximately 600-student school.

The cumulative residential developments listed in Table 1-8, including the Proposed Project, would result in construction of 1,443 new residences in Ramona, with an associated population increase of approximately 4,500 people. The RCP and County General Plan require of a minimum of 30 acres of parkland, including 15 acres of local parkland and 15 acres of regional parkland, per 1,000 people. Based on this standard, this would require the addition of an estimated 68 acres of regional parkland and 68 acres of neighborhood parkland, for a total of 136 acres of parkland. Over the long term, SANDAG projects that the Ramona area population will increase by approximately 62 percent to 52,925 persons by 2030, with interim area population estimated at 35,770 in 2010 and 41,125 in 2020 (SANDAG 2003). According to this forecast and using the County standard, the Ramona area should have a total of 411 to 617 acres of local parkland and 617 to 823 acres of regional parkland,

for a total of 1,234 acres of parkland, by the year 2030. Under the County's Parkland Dedication Ordinance, each proposed development would be required to dedicate parkland or pay a parkland fee. There is an existing shortage of parkland, however, as described above under existing conditions, which is not likely to be corrected by compliance with the Parkland Dedication Ordinance alone. Therefore, the anticipated additional cumulative increase in demand for parkland would result in a potentially significant cumulative impact to parks.

The proposed development and dedication of an 8.3-acre local park and an 11.9-acre historic park site within the Montecito Ranch SPA would not meet the County's use requirements for a minimum 30-acre active park within Montecito Ranch, and would result in a potentially significant Project impact. As previously stated, however, the Project Applicant has filed an amendment to the RCP to change the requirement for dedication of land for a 30-acre park to the dedication and development and of an 8.3-acre local park site, an 11.9-acre historic park site (including the Montecito Ranch House), and 7.8 miles of trails. In addition to parklands, the Proposed Project would include the dedication of 573.8 acres of open space under Wastewater Management Option 1 or 549.1 acres of open space under Option 2 that would include approximately 3.8 miles of developed trails for hiking, horseback riding, and bicycling opportunities. Developed multi-purpose trails (approximately 5.1 miles) and bike lanes also would be provided along the proposed Montecito Ranch Road, as well as existing segments of Ash Street, Montecito Way, and Montecito Road proposed for improvement. The Proposed Project would include all of the above-mentioned recreational areas/opportunities that would be developed by the Project Applicant in lieu of 30 acres of parkland that would need to be developed by the County, as currently required by the RCP. To address the Project's inconsistency with General Condition 9, the Project Applicant has filed a General Plan amendment to the RCP to change the requirement for a 30-acre neighborhood park to instead reflect the Proposed Project recreational facilities, including the 8.3-acre local park and 11.9-acre historic park. With the approval of the RCP amendment, impacts would be **less than significant**. In addition, future developments also would be required to contribute land and/or develop parks or pay a parkland fee in lieu of parkland dedication/ development.

Mitigation Measures

No significant impacts have been identified, and, therefore, no mitigation is required. Because the Proposed Project student generation would be addressed through the District's existing development fee program, the Proposed Project would not result in a significant impact to school services. As previously stated, the Project Applicant has filed a proposed amendment to the RCP to change the requirement for dedication of land for a 30-acre park to the dedication and development of an 8.3-acre local park site, an 11.9-acre historic park site (including the Montecito Ranch House), and 7.8 miles of trails. The County has agreed in writing to the adequacy of this proposal. With approval of the proposed GPA, the Proposed Project would have a less than significant impact on park resources and would not requirement mitigation.

Table 4-1
SUMMARY OF EXISTING AND DEVELOPED 100-YEAR FLOW RATES (cfs)

Basin Number[1]	Existing 100-Year Peak Flow Rate	Developed 100-Year Peak Flow Rate	Net Change in Peak Flow Rate
S100	711.6	752.2	+40.6
N100	347.4	458.8	+111.4
N200	39.8	39.8	0
N300	38.1	38.3	+0.2
N400	108.3	108.1	-0.2
N500	61.7	61.2	-0.5
N600/N700	37.7	49.2	+11.5
N800	82.4	82.7	+0.3
N900	9.1	9.1	0
Total	**1,436.1**	**1,599.4**	**+163.3**[2]

[1] Pre- and post-development drainage basin boundaries are depicted graphically in Appendix I.
[2] This total includes net increases of 40.6 cfs in the southern watershed, and 122.7 cfs in the northern watershed.
Source: SCE 2008a

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Source: Stevens-Cresto Engineering, Inc., 2008

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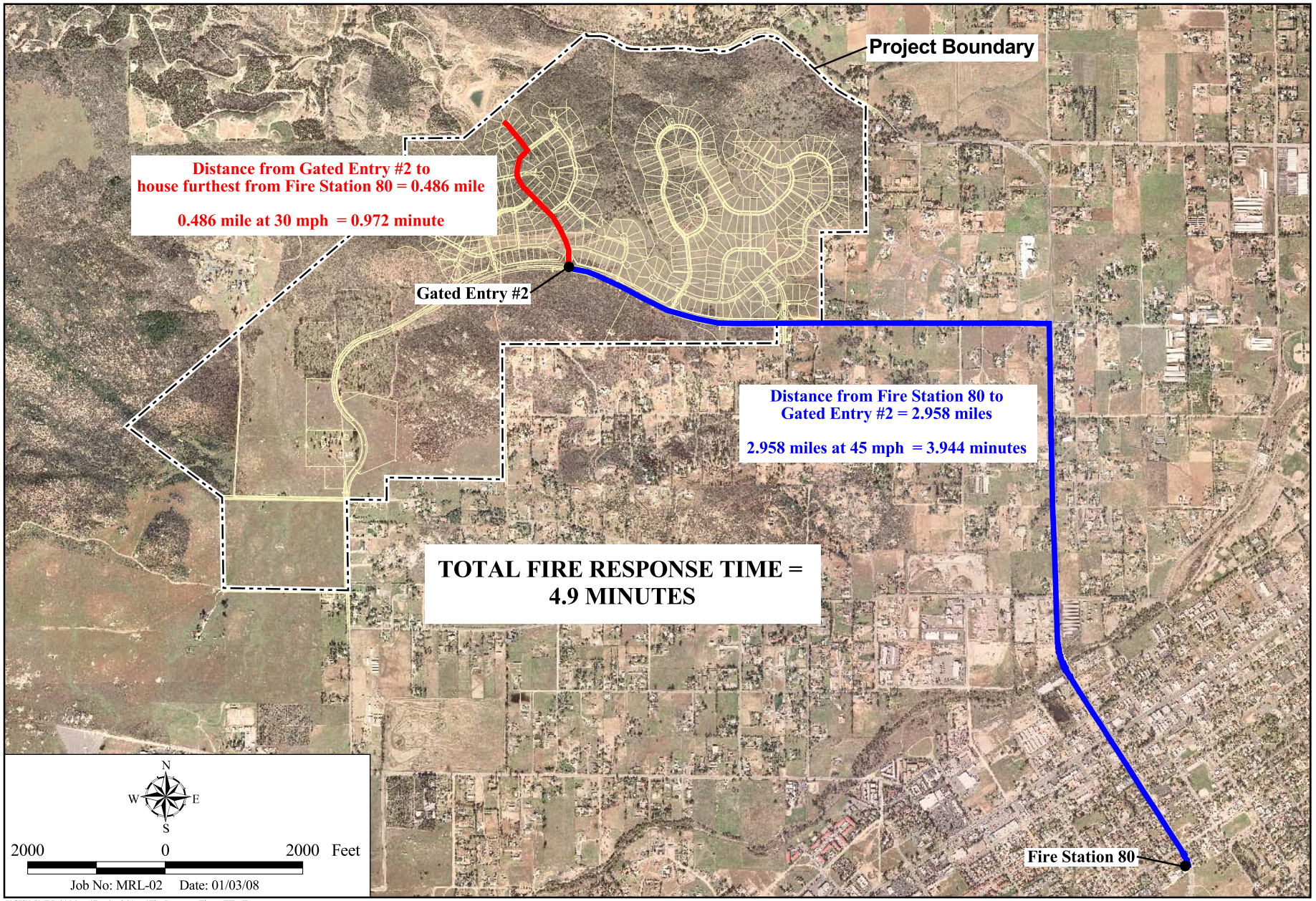
Mapped 100-Year Inundation Areas Within the Project Site

MONTECITO RANCH - EIR

HELIX

Figure 4-1



Fire Station No. 80 Response Time to Project Site

MONTECITO RANCH - EIR

HELIX

Figure 4-2